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**FIGURE 1**

CTGCAGGCGTCGCGCCAATCTTCGCTCTGAGGTGCTGTCTCACCGGTGAGACCTGGAAGCGGGCGAGTCTCGTGC  
TGTGTCGGACCTGCAGCCCCCTGGCCTTCCGCCACC**ATGG**AGTACCTCATCGGTATCCAAGGCCCCGACTATGTTC  
TTGTCGCCCTCCGACCGGGTGGCCGCCAGCAATATTGCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGA  
GTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATTCAGAAAAACG  
TGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCCACGGCAGCAGCTAACTTCACACGCCGAAACCTGG  
CTGACTGTCTTCGGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGCCAG  
CGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCTTTTGACGCCACGGCTATGGTGCCTTCCTGA  
CTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGCAGTGAACCTCCTTAGGAAATGTC  
TGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTTGAATCATTGACAAAAATGGCATCC  
ATGACCTGGATAACATTTCCTTCCCCAAACAGGGCTCCT**TAA**CATCATGTCCCTCCCTCCCACTTGCCAGGGAACTT  
TTTTTGTATGGGCTCCTTTATTTTTTCTACTCTTTTCAGGCGCACTCTTGATAAATGGTTAATTCAGAATAAAG  
GTGACTATGGATATAATTGAAAAA

**FIGURE 2**

MEYLIGIQGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL  
SPTAAANFIRRNADCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTLSILDRIYYTPT  
ISRERAVELLRKLEELQKRFILNLPFSVRIIDKNGIHDLDNISFPKQGS

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FIGURE 3

CTCCGGCGCAGTGTGGGACTGCTGGGTATCGGAAAGCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT  
CCTTTTCAAGATCCCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCTTTTCAGGCAGAAATGGCC  
CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCCTTCGGGAGTTGATCTCTAATGCT  
TCTGATGCTTTGGACAAGATTTCGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA  
ATTGACATCATCCCCAACCTCAGGAACGTACCCCTGACTTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT  
CTCATAAATAATTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGAGAG  
ATCTCCATGATTGGGCGATTGTGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA  
AAGCACAACGATGATGAACAGTATGCTTTGGGAGTCTTCTGCTGGAGTTCCTTCAGTGTGCTGCTGACCATGGT  
GAGCCCATTTGGCAGGGGTACCAAGTGTATCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAAGAGAGGGCGG  
GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTGGAGAAGGAACGAGAG  
AAGGAAATAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAA  
CCCAAGATCGAAGATGTGGGTTAGATGAGGAGGATGACAGCGGTAAAGGATAAGAAGAAGAAAACTAAGAAGATC  
AAAGAGAAATACATTGATCAGGAAGAACTAAACAGACCAAGCCTATTGGACCAGAAACCCTGATGACATCACC  
CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCCTTGGCAGTCAAGCACTTTTCT  
GTAGAAGGTGAGTTGGAATTACAGGCAATTGCTATTTATCTCTGCTGGGCTCCCTTTGACCTTTTGGAGAACAAG  
AAGAAAAAGAACAACATCAAACTCTATGTCCGCGGTGTGTTTCATATGGACAGCTGTGATGAGTTGATACCAGAG  
TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCGAAACATCTCCCGAGAAATGCTCCAGCAG  
AGCAAAATCTTGAAAGTCATTGCAAAAAACATTGTTAAGAAGTGCCCTGAGCTCTTCTCTGAGCTGGCAGGAAGAC  
AAGGAGAATTACAAGAAATTTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAAATCCACGAAGACTCCACTAAC  
CGCCGCCGCCCTGTCTGAGCTGCTGCCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTGAGAGTAT  
GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAGAGCAGGTGGCCAACTCA  
GCTTTTGTGGAGCGAGTGCAGGAAACGGGGCTTCGAGGTGGTATATATGACCAGAGCCCATTTGACGAGTACTGTGTG  
CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG  
GAGGAGAAGAAGAAGATGGGAAGAGAGCAAGGCAAGTTTGAGAACCTCTGCAAGCTCATGAAAAGAAATCTTAGAT  
AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGCTTCACCTTGTGTCATTGTGACCAAGCACTACGGC  
TGGACAGCCAATATGGAGCGGATCATGAAGGCCAGGCATTCGGGACAACCTCCACCATGGGCTATATGATGGCC  
AAAAAGCACCTGGAGATCAACCTGACCACCCCATTTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT  
GATAAGGCAGTTAAGGACCTGGTGTGCTGCTGTTGAAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT  
CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA  
GAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCAGGGCGGATGAGGATGCGTCTCGCATGGAAGAA  
GTGCGATTAGGTAGGAGTTTATAGTTGGAAAACTTGTGCCCTTGATAGTGTCCCATGGGCTCCCCTGCAAGCC  
TCGAGTGGCCCTGTCCCACCTGGCTCCCTCTGCTGGTGTCTAGTGTTTTTTCCCTCTCCTGTCTCTGTGTTGAA  
GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTGTGTATTGTGTT  
TTATTTTATTTCTTCATTTTGTCTGAAATTAAGATGCAAAATAAAGATATGCGGTTTTAAAAAATAAAAAA  
AAAAAAAAAAAAAAAAA

**FIGURE 4**

MPPEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLD SGKELKIDI  
IPNPQERTLILVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIQQFGVGFYSAYLVAEKVVVITKHN  
DDEQYAWESSAGGSFTVRADHGEP IGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI  
SDDEAEEEEKGEKEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKKTKIKEKYIDQEELNKTPIWTRNPDITQEE  
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFI MDSCDELIPEYLN  
FIRGVVDS EDLPNISREMLQQSKILKVIKKNIVKKCLELFS ELAEDKENYKFFYAFSKNLKLG IHEDSTNRRR  
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANS AFVERVRKRGF EVVYMTEP IDEYCVQQL  
KEFDGKSLVSVTKEGLELPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA  
NMERIMKAQALRDNSTMGYMAKKHLEINPDHP IVETLRQKAEADKNDKAVKDLVLLFETALLSSGFSLEDPQT  
HSNRIYRMIKLGLGIDEDEVAAEEPNAAVPDEIPPLEGDEDA SRMEEVD



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FIGURE 5

GAATTCGGGGCCATGAGCTGCCCGCTGCCCGCTGCTGCGCGCTGCTGCTAGTCTCTGGGGCTCTGCCGGGCGCT  
CCCCGGAACGCACTCTGCTCTCTCGCGGATGACGGAGGCTTTGAGAGTGGGCGGTACAACAACAGCGCCATCGCC  
ACCCCGCACCTGGACGCTTGGCCCGCGCAGCCTCCTCTTCGCAATGCCTTCACCTCGGTACGACGCTGCTCT  
CCCAGCCGCGCGCAGCCTCCTCACTGGCTGCCCCAGCATCAGAATGGGATGACGGGCTGCACCGAGCCTGCAC  
CACTTCAACTCCTTCGACAAGGTGCGGAGCTGCGCGTCTGCTCAGCCAAGCTGGTGTGCGCAGCAGGCATCATC  
GGGAAGAAGCAGCTGGGGCGGAGACCGGTGTACCCGTTGACTTTGCGTACACGGAGGAGAATGGCTCCGTCCTC  
CAGGTGGGCGGGAACATCATAGAAATTAAGCTGCTCCTCCGAAATTCCTCGACACTCAGGATGACCGGCTTTC  
TTCTCTACGTGCGCTTCCACGACCCCCACCGCTGTGGGCACTCCCAGCCCCAGTACGGAACCTTCTGTGAGAAG  
TTTGGCAACGGAGAGCGCGCATGGGTCTGTATCCCGAGCTGGACCCCCAGGCTACGACCCACTGGACGTGCTG  
GTGCTTTACTTCTGTCCTCCCAACCCCCGCGCAGCCGAGCCGACCTGGCCGCTCAGTACACCACCGCTCGGCCGATG  
GACCAAGGAGTTGGACTGGTCTCCAGGAGCTGCGTGACGCCGGTGTCTGAACGACACACTGGTGATCTTCAG  
TCCGACAACGGGATCCCCTTCCCCAGCGCGCAGGACCAACCTGTACTGGCCGGGCACTGTGAACCCCTTACTGGTG  
TCATCCCCGGAGCACCCAAAACGCTGGGGCCAAGTCAGCGAGGCCCTACGTGAGCCTCTTAGACCTCACGCCCCACC  
ATCTTGATTGGTTCTCGATCCCGTACCCAGCTACGCCATCTTTGGCTCGAAGACCATCCACCTCACTGGCCGG  
TCCCTCCTGCCCGCGCTGGAGGCCGAGCCCCCTCTGGGCCACCGTCTTTGGCAGCCAGAGCCACCACGAGGTCACC  
ATGTCTTACCCCATCGCTCCGTGCGACACCGGCATTTCCGCTCTGTGCACAACCTCAACTTCAAGATGCCCTTT  
CCCATCGACAGGACTTCTACGTCTCACCCACCTTCCAGGACCTCCTGAACCGCACCAAGCTGGTCAGCCACG  
GGCTGTGTACAAGACCTCCGTCACTACTACCGGCGCGCTGGGAGCTCTACGACCCGAGCCGGGACCCCCAC  
GAGACCCAGAACCTTGGCCACCGACCCGCGCTTTGCTCAGCTTCTGGAGATGCTTGGGACCACTGGCCAAGTGG  
CAGTGGGAGACCCACGACCTGGGTGTGCGCCCCGACGCGCTCCTGGAGGAGAAGCTCTCTCCCCAGTGCCAG  
CCCTCGACAATGAGCTTGACCATCCAGGAGGCTGTGCACACATCCAGGATGTCCAGACACATCCACACA  
CGTGTCCGTGTGGCCGCGCAGCCTGGGGAGTAGTGGCAACAGCCCTCCGTCACACTCCCATCAAGGAGGGTT  
CTTCCTTCTGTGGGGTCACTCTTGCCATTGCTTGGAGGGGGACAGAGCATGTGACCAGAGCATGTGCCAGCC  
CCTCCACCACAGGGGCACTGCGGTATGCGAGGGGACACAGTTGCTTTGTGTGAACCATGTCCAGCAGCG  
GAATTCTAGACATACGTGGCTGCGGACAGGGCAGCGCCCCAGCCCATGACAAGGGAGTCTTGTTTTCTGGCTT  
GGTTTGGGACCTGCAAAATGGGAGGCTTGAAGCCCTCTTCAAGCTTTGGCAGCCACAGATACTTCTGAACCCCTT  
ACAGAGAGCAGGCGAGGGGCTTCGTTGCCGCGTGGGCGAGTACGCAAGTCCACCAGACACTACCTGGGAGCAGCG  
GCTTGGCTCTTACCAGCGTCTGGCTAGAGGAAGCCTTTGAGCGACCTTTGGGAGGTTTCTGCTTCTTCTGTTT  
TGCCCATGGTCAAGTCCCTGTTCCCGAGCGAGGTTTCACTGATTGGCAGCAGGCTCCCTGAGTGATGAGCTTGA  
ACCTGTGGGTGTTCTGGGCGAGAAGCTTATCTTTTTTGAAGTGTCCGAAGATGAAGGCATGGCGATGCCCGTCTCT  
CTGGCTTGGGTTAAATCTTCGGTGACACTGGCATTGTGGGTGGTATGCCCCGCTCTGGCTTGGGTTAAATCT  
TCGGTGACACTGGGCTGTGGGTGGCAATGCCGCTCCTCTGGCTTGGTTAAATCTTCTCGGTGACACTGGCGGT  
CTGGGTGGCGATGCCGCTCCTCTGGCTTGGGTTAAATCTTGGATGACGTGGCGTTGTCTGGGAGAATGTGCCGTT  
CCTGCCCTGCCTCCACCCACCTCGGGAGCAGAACCCGCGCTGGACACCCCTCGGCTGGACACCCCTCGAAGGA  
GAGGCGCTTCTTGGTGGTGGGCTCCCTTGCCTTCCCTCCCTATCACTCCATACTGGGTGGGCTGGAGG  
AGGCCACAGCCAGCTATTGTAAGCTTTTT

**FIGURE 6**

MSCPVPACCALLLVGLCRARPRNALLLLADDGGFESGAYNNSAIATPHLDALARRSLLFRNAFTSVSSCSPSRA  
SLLTGLPQHONGMYGLHQDVHHFNSFDKVRSLPILLSQAGVRTGIIIGKKHVGPETVYFPDFAYTEENGSVLQVGR  
NITRIKLLVRKFLQTQDDRPFFLYVAFHDPHRCGHSQPQYGTFCFKFNGESGMGRIPDWTPQAYDPLDVLVPYF  
VPNTAARADLAAQYTTVGRMDQGVGLVLQELRDAGVLNDTLVIFTSONGIPFPSSGRINLYWPGTAEPLLVSSPE  
HPKRWGQVSEAYVSLDLTPTIILDWFSIPYPSYAIFGSKTIHLTGRSLLPALAEPLWATVFGSQSHHEVTMSYP  
MRSVQHRHFRVLVHNLNFKMPFPIDQDFYVSPITFQDLLNRTTAGQPTGWYKDLRHHYYRARWELYDRSRDPHETQN  
LATDPRFAQLLEMLRDQLAKWQWETHDPWVCAPDGVLEEKLSPCQQLHNEL

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FIGURE 7

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAATATTTTTGTATAAAACAGTCTATA  
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAGAAGTGAGCACTCCATTGCTTTCTT  
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAAGGATCGAGATCGAGAAGCCACACT  
GCCAGTGAAAAAGCTACGTCTTTACTGCATAAATTAGAGGAAGCAATTTCCGGAACACGGAAACCTTCAAACATATA  
AATACTGAATTATCGAACACTTGCCAGGCCTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTATAGATGAGGA  
ATTTCTCTCACTATGATTCCTCTGTCCTGCGCAGATGCAATTCACAAACCTCTTCAAGAAAAATTGAAGCAGTGTGTG  
CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC  
ACCTCTGCTGGATGCCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCTGGGAATCAACACCTTTCTCAGGTGT  
AGCCAACCAATCCACACTCTGTGTGAAAGGCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG  
ACAACCAAGTGCCAGGCCCCACAAGTGGCCCGAGCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA  
TGACCCAAGTATGGAAGAGAATGGTGTGAACGCGTGTGTCTGAGAGCCTGTGCAGTCCAGGGGATATTCTCTC  
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAAATTCAAGTGATCTGGATTAGAAATTCTGAA  
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTAAAGAAAGAGGAGGATACAAGATCAGCTTCTCCACGAT  
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAAATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT  
AAATCTGGAAGCCAAAGAGGAACCAAGAAACATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT  
TTCCCTCTTCTGTAAACCACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA  
GGTGGAGGCAGAAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT  
TGAAGAGAGGTCCCGTGACTGGGCAGAAGAAAATTTGAAGAAAGAAATCACTAATCTTTAAAACATTATGAGTC  
TTTAAACACCTCTGTGTGAAGATGACAACCAAGGCACAGGAAATCATTAAAGAGCTGGAGAAGAGTATAAAGTTTCT  
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAAGCCGGTTAGTAA  
AGCAGTTGAAGTGATGATTCAGCACGTAGAAAACCTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAAGAAGA  
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATAAAAAA  
ACGTTTCAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGGCTCTTTACCCAGAAATATTGG  
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTCAAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG  
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTATTAGCACCTATCTCTGGGCAGATGCTGAAGAAGA  
AAAAATGGAACATAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG  
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCTGGGCAAC  
AAATCTCAAGTCTCTCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCTGTACTGTTCGACG  
TTTGATGAGCTTCTCAGAGGCAATTATTTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG  
GACGCTCTAGAACATATCTTGTGGCCATTACCAGACTCCGACACAATGGGCCACCACCAGTGTGACAGCAGGA  
CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACCTCGTAAATTAGTAACCTTTAGCTGGGAAA  
GTATAGCATGAACCAAGAGTTCTCAGAATGACCGTAAGATAGCTTACATTTCCCTCTTTTGCCTTTATCTCCCC  
AACTAAAATACAATGGG

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**FIGURE 8**

MESTPFSGVANQIHTLCERPTYGEVKDGDALDVKRQHKCPGPTSGPSPGTNLSCGIRMNDGPSMEENGVERVCPES  
LLQSRGYSSLPLPRHTSSDTGITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD  
STSKDKTILNLEAKEEPTIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW  
FTLEKRVKLEERSRDWAEENLKKEITNSLKLESITPLCEDDNQAEI IKKLEKSIKFLSQCAARVASRAEMLGA  
INQESRVSKAVEVMIQHVENLKRMAYAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT  
IASLPRNIGNAGMVAGMENNDRFRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE  
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGLFQKSVDA  
APTQQEDSWTSLHILWPFTLRHRNGPPPV

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**FIGURE 9**

AGTAATTCGGGAAGCTCGCCTTACAACATCCGCGCGGCTCGGCCCTCGCGCCCGGCCCAACAACAACTC  
AGCGCAGCGCTCCCGGGCGCCGGTTTCAGAGCGACCTGCGGCTCAGAGCGGAGGGGAGACTGACCGGAGCGCGGA  
TCGGGACAGCGGCCGGGACAGCGCGGAGACGCGCTGTGTGAGCGCGCGGACCAAGCGGGCCAGAAAGCGGGT  
TGCAGCCAGAGGGGCACCTTCTGCAAACTGCTGTGGATCCCCATCCAGCAAAAGCTCTAAAGATCAAGCGAGA  
GCTGAGCGAGAACACGCCGACCTGTGCGACGAGCGCTGATGGGCTGTCGGTGCGCGAGCTGAACCGGCATCT  
GCGCGGGCTCTCCCGCGAGGAGGTGACACGGCTCAAGCAGCGGCGCGGCACACTCAAAAACCGTGGCTACGCCGC  
CAGCTGCCCGGTGAAGCGCGTGTGCCAGAAGGAGGAGCTGCAGAAGCAGAAGTCGGAGCTGGAGCGCGAGGTGGA  
CAAGCTGGCGCGCAGAACGCCGCCATGCGCCTGGAGCTCGACGCGCTCGCGCGCAAGTCGAGGCGCTGCAGGG  
CTTCGCGCGCTCCGTGGCGCGCCCGCGCGGGCGCGCACGCTCGTGGCGCGGCCAGCGCTCATCACCATCGTCAA  
GTCCACCCCGGGCTCGGGGTCTGGCCCGCGCCACGGCCCGGACCCCGCCACGGCCCGGGCTCCTGCTCC**TAGT**G  
CCCGCCCCGCCATGCTTCAGCCACGCCCTCCGGCTCAGCTCCCTCCCAAAGTGCTGAGCGCGCTCTGT  
GCCAGGTCCCATTTCTCTGCAGCACTGGCCCTTGGTGACACACATTCCTTCGTGGGCGCTGTCTTCCTCTT  
GCAGCCCCCAAACTGGGACCGAATGACCTGGGAAGGGGAAGTTGGGTAGGTTGGGGATGGGGCAGAGGTCGG  
ATCTGGGATCGCCCTGGCTGAAAGTTTAGCCTTTTAGATTGAGAGATACAGAGCCGGCTTAGAGAAACAGCTGT  
TGGGGGAGAAGGGGCACCCCTCATCTTGAAAC TGC TCTATTGTGCCAATATGCCCTCCAAACCTCCAGGA  
TTCAAAGCTAGGTTTGGCTGTCTGTGACTTACGGGACCGTCTGCTGAGAAATTGCACTGAAGAGATGCCCCAC  
CTCTGGTTGGGCTGGGGGTGCC TGGCCTTCGAAAC TAAAGAGTGGGTGGGAAGACTAGTGAACCCAGTTCA  
CGGATGGGAAACAGGCCTGAGGTTCACATTTACATTAGTGGTTGTGTGGGACCAAAACCTGGGTGTCTCACTG  
CTGCCCTGAGTCCAGCCATGGTTTTAGGGGGACAGTGGACAGGGACTCAGAAATGTGGTGGGAGGGCTCCCTG  
GCTTGGGAGACCGCTCTCTGCAAGGGAGGGGAGAGAAGCAGAGGGAGAGAGAAGGTGACACGATGGAAGAGTG  
GGAAGGAGCTGGCTGGCTCAGCCCTAGGCTGTCCCTGCAGCCAGGGTGTCCGGGGCTGGCCAGTCAGAGAAAG  
GGGGCCATGGACTGCTGTGGCAAAATAGGAGAGACAAGGAGACAGACCTCGAGTCTTACTACAGTCTGGAAGTGGG  
TCTTAAGAAGAAGGGTCCACCTCAACCCCTGTCACTGTCCACTGTGGGGTGGGGGCTGACCCCTGCCCTTGATT  
GTCATTCTCC TGGGAAGCCAGTCTCAGTCCCTCCCCAACACTGTCCACACTGCCCTCCCACTGTTTATTTA  
TTGCACGGATCTAAGTTATTCTCCCGAGCAGAGCCGAGCTCCTGCTCCTCGGAAAAGTGGCGTATGGCCCTG  
AGCTGGGCTTTATATTTATATCTGCAAAATAATACATTTTATCTTATATTTAGGGAAAGCCGGAGAGCAACA  
CAAAAAATGTTTAAAGCCGGCGCGGTGGCTCACATCTGTAATCCAGCACTTTGGGAGTCCAAGGAGGGGATCG  
CTTGAGTCCAGGAGTTTGAGACAGCCTGGACAACATGGTGAAACCCCGTCTCTACAAAAATACAAAAATTAGC  
CATGCATGGTGGCTATGCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCACCTTAAGCCCGAAGG  
CAGAGGTTGTAGTGAGCTGAGATCGCACCACTGCATCCAGCCTGGGCAACATAGCAAAATCCTGTCTCAAAAA  
AAAGTTAAAAAATATTGCCCGGCTCCTAGAATTTATTATTTCCTGACTTACAGCAAGCGAGTTATCGCTCTCTG  
TATTTTGTAGACTTTCTAAATAAAGTCAAAATCTTTCTTTTCCACAGAGAAAAAA

**FIGURE 10**

MSVDP LSSKALKIKRELS ENTPHLSDEALMGLSVRELNRHLRGLSAEEVTRLKQRRRTLKNRGYAASCRVKRVCQ  
KEELQKQKSELEREVDKLARENAAMRLELDALRGKCEALQGFARSVAAARGPATLVAPASVITIVKSTPGSGSGP  
AHGPDPAHGPA SCS

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FIGURE 11

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAAATGGAGAACTATTAACCACCATCTTTCAGTGG  
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCATACCTGGAACCCAAAGGTAAGACACTCAAGGACA  
GACATTTTGGCAGAGCATAGATGAAAAATGGCAAGTTCCCTGGCTTCTCTCTGCTCAACTTTTCATGTCTCCCTC  
TTCTTGGTCCAGCTGCTCACTCCTTCTGCTCAGCTCAGTTTTCGTGCTTGGACCCCTCTGGGCCCATCTTGGCCATG  
GTGGGTGAAGACGCTGATCTGCCCTGTCACTTGTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG  
AGTTCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAAGACAGGCAGAGTGCACCATAT  
CGAGGGAGAAGCTTCGATTCTGTGGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGCTCACAGCC  
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT  
GCAGCATTTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC  
ACTGGCTGTGATACCCCAACCCAAATAAAGTGGAGCGACACCAAGGGAGAGAATCCCGGCTGTGGAAGCACCT  
GTGGTGCAGATGGAGTGGCCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGTGGGGGTGTA  
TCCTGCATCATCAGAAATCCCTCCTCGGCCCTGGAAAAGACGCCAGCATATCCATCGCAGACCCCTCTTTCAGG  
AGCGCCAGCCCTGGATCGGGCCCTGGCAGGGACCCTGCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC  
TTCCTTGGGAGACAACAGAAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGCGCAGAGATGAAAGAAATG  
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAAGTCAAGTGGAGGAAAAATCCAG  
TACATGGCTCGTGGAGAGAAGTCTTTGGCCCTATCATGAATGGAAAAATGGCCCTCTTCAAACCTGCGGATGTGATT  
CTGGATCCAGACAGGCCAAACGCCATCCTCCTTGTCTGAGGACCAGAGGAGTGTGCAGCGTGTGTAAGAGCCG  
CGGGATCTGCCAGACAACCTCGAGAGATTGAATGGCGTTACTGTGCTCTTGGCTGTGAAAACTTCATCATAGGG  
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAGAGTGGCATATTGGGGTATGTAGTAAGAAGCTGGAGAGG  
AAAAAAGGTTGGGTCAAATGACACCGGAGAACGGATACTGGAC TATGGGCCCTGACTGTGGGGAATAAGTATCGG  
GCTCTCACTGAGCCCGAGAACCACTGAAACTTCTGAGCCTCCTAGGAAAGTGGGGATCTCTGGACATAGAG  
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCCCGCAGCCCTCTTCTCTGAG  
CCTCTATATCCTGTTTTCAGAAATTTTGACCTTGGAGCCCACTGCCCTGACCATTGGCCCAATACCAAAGAAGTA  
GAGAGTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCCTGACCCCGGGCTTAGCTAATGAA  
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCTGGAGCTGAGGCTCTCCCTTCTGCA  
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTCAATTCATTATTCATATGA  
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCTTATACAGATAAGGAAACTGGGGTGAGAAAGGTGAATT  
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAAACAATTAACAGAGAA  
TTTAAATGTCTTAGTGCTGTGTATATAAGCTTTGGTGGATGTCACCTCCTTAACTCTCACAACACCCCTGTCCGG  
TAGTCATATTTTGCAGATGTGAAGCTGAGGCAGGGCAACATGAAGTAACCTACATAATTCATACAGTAATTTGT  
GCAGTTGGGAGATGTTACGCTTAGTCCCTGGCTAATTGCTGTCTTTTCCAGCCTGATTTTTTTTCCCAAGG  
AAGAGCCCATGTAGCCCTGAGGTTTCTTCCAGGACAGCTGCAGGGTAGAGATCAATTTAAGTGTCTTGTGA  
GTTGACATCCCTATTGACTCTTTCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG  
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACT  
GATAAATCATGGGGCAGAGATATGTTGCCACCAAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCCTCC  
TTCAATCAAGGTTTCCAGGCAGAGCAAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT  
AAAAGAATTACAGGGATGTTTTAATCCCACCTATGGACTCAGTCTCCTGGAAATAGGCTGTGCCACTCCTGGTCA  
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCGTGCTAGGGAAGAACTGCTCTTCAATTATCATCACTATT  
ATTGCTCACCACCTGTATCCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCATTAATATGTTTAATAAT  
GAAAAA

**FIGURE 12**

MKMASSLAFLLLNFHVSFLVLQLLTPCSAQFSVLGPGPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HIEVKGIEDGGIHLECRSTGWYPQPQIKWSDIKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS  
LLGLEKTASISIAADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ  
EISLREKLQBELKWRKIQYMARGEKSLAYHEWKMALEKPADVILDPDTANAILLVSEDQRSVQRAEPRDLDPNP  
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGWYTMGLTDGNKYRALTEPRT  
NLKLEPPPRKVGIFLDYETGEISFYNATDGSIIYTFPHASFSEPLYPVFRILTLTEPTALTICPIKVEVSSPD  
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY



## FIGURE 13A

CCGGGCTGCGCGGCGAGGCTGAGCCGGGCCCGGGCGCCGGGGCGGGGCGGCTGGCGGGGCGAGGAAGCGCCTC  
GCGGACCCGGGGCCGCCCGCCCTCCCGCGCCTCCGGGCTCCCGGCTCCCGGCGCGGCTCGCCCCATGCACT  
CGCCGCGCGCGCGCAGCCCGCGCACGCCGATGGCTCTCGCGCGCGGGGCGGCGACCCCTTAGCGCCCGGGCC  
GCGCGCGCGACCCCGCCGTTCCAGACGCGCGCGGGTGCCCGGTGCGCGCTGCTGTTGCTGCTCTCTGGG  
GCGCGCGGGCGCGCGCTGAGAGTCCAGCGTCGGTTCCCTCGCCACCGCCACCAAACTCTCGCCCTGGAC  
GGCGCGGCGGGGACCGTGACTGCGCGCCGTCAACGCCCTTATCAGCTGTGCGGCGGCAACTGAGCCTGGAG  
GCCGAGCGGGCGCTGGCCCGCTGCCGACAGCCGCTGTGTACGCTCCGACGCTGCCGAGCCCTGTGCGAG  
CACCCGCGGCGCTCACGGACAACATAACAAGATCTGACAGTGGACCCCGGCGAGGGCCTGGTAGTCGTGTGC  
GGGTCCATCTACCAAGGGGTTCTGCGAGCTGCGGCGCGCGGGTAACATCTCGGCGGTGGCCGTGCGCTTCCCGCC  
GCCGCGCGCGCGCGCGAGCCGCTACGGTGTTCGCCAGCATGCTGAACGTGGCGGCCAACCCCGAACCGGTCC  
ACCGTGGGGCTAGTTCTGCTCCCGCCGCGGGCGCGGGGGCGAGCCGCTGCTCGTGGCGCCACGTACACCGGT  
TACGGCAGCTCCTTCTCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACACGCCCGAGATCGCCATC  
CGTCCCTGGACACGCGCGGCGCAGCTTGCCAAAGCTCTTCACTTCGACCTCAACCCCTCCGACGACAACATCCTC  
AAGATCAAGCAGGGGCCCAAGGAGCAGCACAAAGCTGGGCTTCGTGAGCGCCTTCTCGACCCGTCGACCCGCGC  
CCGGGTGCACAGTCTACGCTACTTGGCGCTCAACAGCAGGCGCGCGCGGGCGACAAGGAGAGCCAGGCGCGG  
AGCCTACTTGGCGCGCATCTGCTTGGCCACGCGCGCGCGGCGACCCAAAGCTCAACGAGTCTCAGGCTCTACAG  
TTGGGCTTCAGTGC CGCGGGCGCGCGGGCGCGCGGCGACCTTACAGCGCGCTGGTGTGCGGTCTTCCAGCCCG  
GAGCGGCTCTTGTGCTCTTCAGCGGGCCCCAGGGGTCCCCCGCGCGCCGCGCTGCTCGGCGCGCACTCTGCGCC  
TTCCGTTTCGCGCGCGCGCGAGCCGCCATCCGAGCTGCGGCGACGCGCTGCTGTGAGAACCGCGCGCGCGAGTG  
GTGGCGGTGCTCGACAGCGGTGTGACGGGCACGGGACCGCGCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA  
GAGCAGTGGACTGTGGAGCTGTCACTTGCAGCACCCGCTGTCCATCTCGACCCCTGAAGCGCCACGCGCGGTG  
TTCCGCGCCCGGGGCTCACTTCGTGGCGGTGGCCAGCGTCAACAACATACACAGCGGTCTTCTTGGGACGGTC  
AACGGGAGGCTTCTCAAGATCAACTGAACGAGAGCATGCAAGTGTGAGCAGCGCGGTGGTGAATGTGGGCTAT  
GGGAGCCCGGTGACCATGTATGCACTTGAACCGAGCAGACTCCGTTTACCTTTACCTATGACGTATGACGTCCACAG  
ATGGCCAGGTTGAAGGTGCGCGCTGCAACGTGCATCCACTGTGGGACTGCGTGGGTGCGGCGGACGCTTAC  
TGGCGGTGTTGTCCCTGGAGACGCGGTGCACCTTGCAGCAGGACTGCACCAATTCAGCCAGCAGCATTTCTGG  
ACCAGTGCCAGCGAGGGCGCCAGCCGCTGTCTGCCATGACCGTCTGCTTCCGAGATCGATGTGCGCCAGGAG  
TACCCAGGCATGATCTCGACATCTCGGGCAGCCTGCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG  
AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCCTTGGTCACAGATTGCTACTGCAACCTCCTGCGG  
AGGGAGGCTTTCCGCCCTTCCGCCCAACCGAGGACACGTGACTGTTGAGATGTGTGTGAGGCTCAATGGGCGG  
AACATCGTCAAGGCCAATTTCACTATCTACGACTGCAAGCCGCACTGCACAAGTGTACCCCCACACAGCCTGACC  
AGCTGCTGTGCGGACAGTGGCCCTGTTTCTGGTGCAGCCAGCAGCACTCTGTGTTTCAACCACTCTCGGTGC  
GAGGCTCACCAAACCCAGGAGCCCTCAGGACTGCCCCCGGAGCCCTGCTTCAACCCCTGGCACCCTGCTACG  
GGTGGCTCCAGAACATCTCGTGGTCTGTGCGCAACACTGCTTTTTCCAGGTTGACGCCCTGGAGTGTGATTT  
GGCTGGAGGAGATCTTCAGGCTGTGTGGGTGAATGAGTCTGTGTGATGTCGACAGGTGGTGTGCTGCACAG  
ACCCGGAAGAGCCAGGTGTTCCCGCTCAGCCTCCAACATAAGGGGCGGCGAGCCGATTCTTGACAGCCCTGAG  
CCCATGACATGATGTTGATAAATGTGCCATGGGCAAGCCGAGTGTTCAGGATGCTGGGCGCGGAAGACCTTG  
GGTCACCTGTGATGTGTAGATGTGCTGCCCTGCGGGGCGCTTGCAGGACCATGGCTGGCAGCTGCGCCCGG  
CCCCGAGATCCGCGGATTGAGCCCTGAGTGGCCGTTGGACGGTGGGACCTGCTGACCATCCGAGGAAGGAAC  
CTGGGCGCGCGCTCAGTACGTGGGCCACGGCGTGTGATTTGGTGGTGTGGCTGTGAGCCACTGCCTGACAGA  
TACACGGGTGTGCGGAGGATCTGTGTGTGTCACAGGGCAGCCCCAGGACCACTTCAGGTTGTGGTACCGTGAAC  
GCCTCTAAGGAGGGCAAGTCCCGGAGCCGCTTCTCTACGTGTGCCCCGTGGTCCATCCCTGGAGGCTACCATGT  
GGCCCAAGGCCGGGGGACCAAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCCTG  
GTGACGACACAGAGCTCCGACGAGCTGATGCGCACAGATACCAAGCTGCCATGCCATGCCCTGAGGCTGAGGAGG  
CTGCGCGGCTCCGGTGCTGTGTGTGCGCTTCGAGCGTGGGGCTGCGGTGACGCGCAACCTCACCTTCTGTGAT  
GTGACGAACCCGGCTATCAGCGGCATCAGTCCCCGCGCAGCCCTGTGACGTGGCGGAGGACCATCAGTGGCT  
GGTGAGCGTTTCCATGGTGAGAAATGTGTCCATGGCCGTCCACCAATGTGGCCGGGAGCCGCTGCTGCAAG  
GTTCTCAACTCCACCTCATCACTGCCGCTCCCCGGGGCGCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC

## FIGURE 13B

ATCAATGGGCGGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCGAGGAGGCACAGCGGGGCG  
AGCAGGTTCCGGCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAGAAGTGGATCAAGCACCCAC  
CCCGGGGAGCCTCTACCCCTCGTTATCTCAACAGGAGCAGGACAGCCTGGGGCTCCACAGCTACAGAGTACCGGGTCT  
AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTGTACAGAATCATCCACTGCTCGGTCAACAGAGTCCGTC  
GGCGGGCGCTGGGGCAGCTGCCATCAACAATCCAGGTAGGGAACTTCAACCAGACCATCGCCACACTGCAGCTG  
GGGGTAGCGAGACGGCCATCATCTGTGCCATCTGCATCTGACAGCTCTCTGCTGCTGCTCTCCGTGGTGGCCCTG  
TTCGTCTTCTGTATCAAGAGCGGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGAGATTGGAA  
TCTCAGATCCGAGAGAAATCCGCAAGGCTTCCGTGAGCTGCAGACAGACATGACAGATCTCACCAGGAGCTG  
AACCAGACGCCAGGGGATCCCCCTTCTGGAGTATAAGCACTTCGTGACCCGCACTTCTTCCCCAAGTGTTCCTCC  
CTTTATGAAGAGCGTTAGCTGTGCTGCCCTCCAGACCCTCAACTCCAGGGCAGCTCCAGGCACAGGAAACCCAC  
CCACTGCTGGGAGAGTGAAGATTCTGAGAGCTGCCGGCCCAACATGGAAGAGGGAATTAGCTTGTTCTCTCTCA  
CTACTCAACAACAAGCACTTCTCTATCTGCTTTGTGCCACGCGCTGGAGCAGCAGAAGGACTTTGCGGTGCGCGAC  
AGGTGCAAGCTTGCCCTCGCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG  
CTGCTGGTGGACCTCATTTAGCGCTCGGCCGCAAGAACCACCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG  
GAGAAGATGCTCCACCACTGGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC  
CTGCTGCTGTGTCCATCAAGACCAAATCAACAAGGGCTCCATCGACGCCATCACAGGCAAGGCCGCTACACA  
CTCAATGAGGAGTGGCTGCTGCGGGAGAATCATCAGGGCCAAAGCCCCGGAACCTGAACTGTCTCTCCAGGGCTGT  
GGCATGGACTGCTGAGCTGAGCGCGGGGCTGGACACCGACACGCTGACACAGGCTCAAGGAGAAGATCTCTGGAGCG  
TTCTGCAAGAATGTGCCCTACTCCAGTGGCCGCGTGACAGGACGCTGACCTTGTAGTGGTTGCGCTCCAGCACA  
CAGAGCTACATCTTCGGGACCTGGACGACACCTCAGTGGTGGAAAGACGGCCGCAAGAAGCTTAACACGCTGGCC  
CATTACAAGATCCCTGAAGGTGCCCTCCCTGGCCATGAGTCTCATAGACAAGAAGACAACACACTGGCCGAGTG  
AAAGACTTGGACACAGAGAAGTATTTCCATTGGTGTGCTTACGGACGAGCTGGCGGAGCCCAAGAAGTCTCAC  
CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCTGCTCTCCACCAAGGGCAGCTTGCAG  
AAGTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCCACTGGCTGTCAAGTACTTT  
TTCGACTTCTCGGAGGACAGGCTGAGAAGAGGGGAATCTCCGACCCGACACCTTACACATCTGGAAGACCAAC  
AGCCTTCTCTCCGGTTCTGGGTGAACATCTCGAAGAACCCCAAGTTTGTCTTTGACATCGACAAGACAGACCAC  
ATCGACGCTGCTCTTTCAGTCTATCGCGAGGCCCTTATCGACGCTGCTCCATCTCTGACCTGCAGCTGGGCAAG  
GATTCGCCAACCACAAGCTCCTCTACGCCAAGGAGATTCTGAGTACCGGAAGATCGTGACGCGCTACTACAAG  
CAGATCCAGGACATGACCGGCTCAGCGAGCAAGAGATGAATGCCATCTGCGCGAGGAGTGCAGAGAATACCAAG  
AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTATAAGTACGCCAAGAGGATTCGGCCGACAGATCATGGCC  
CGCTGTGGAGGCCAACCCACAGGCGCGGAGGACACAATGCAGCACAAGTTTGAGCAGGTGGTGGCTTTGATGGAG  
GACAACATCTACGAGTGCTACAGTGAGGCCTGAGACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAATGGA  
CGCCCACTGGGCTCAACTTGATCTTCTACCCCGTGCCTGTGACTCAGACTGGGAAATCTGAGCAGAGACGGCT  
GGGGCGGGGAGGAGGAGGGGCTGCTCTCTGAGACAGGGCGCCCCGCTTGAACCTTGGGCACCTCCATCCC  
CTCCCACTGTCCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCATCTGCCACGACAG  
GCCTGCACTGTGCCACCCACTTGTCTCCAACTCCAGTTGGTCTGCTGCGCAAGAGCCCCGTGCATCCAGGCG  
GCCAAGCACAACCTGGGGAGAGGAGGCCGCCAGCCCGGAGGCTGCAGCCCAAGAACTCTACCTCATCCCACTG  
GTGCGAGGAGCCCTCCTTGACACTGACCTTTGATTGGTTCTGCTTCAACTACCAAAATGTTATCTCCACTTCCC  
CTCACCCGTAGAGGATCTTGGCCACAGACAGTTTCAAGTAGTGTACAGATTTTGTGCTTGGCGGCTGTGGTA  
GAGTGGGAGTGGCCGCGCCATGGGGTGCTCTGTGGCTTCTCCAGGAGCAGGAGGGTGGAGGGGAGGGATGGG  
GGGCACAGGAGCTGGGAGCCCGCTCTCCAGGAAAAGGAGAGGGTTAAGATGCACTGCAAGGCTGAGTGGGCTAC  
TTGATCTTGTGAAAGTGTCTTCTAAAGATAGCACCACTTTTTTTTTAAAGGTTTTATATATAAAAAACGTATC  
ATGC

## FIGURE 14

PGCAARLSRARAPGPGAAGAGKRRLADPGPPPASRRRLRAPGSRPLAPCTRRAAQPAHARMAPRAAGGAPLSRA  
AAASPPFPQTTPRCVPVLLLLLLGAARAGALEIQRRFPSPPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE  
AEAAGVPVDPSP LCHAPQLPQASCEHPRLTDNYNKLQLDPPGQGLVVVCGSIQGGCQLRRRGNISAVAVRFPF  
AAPPAEPVTVFSPMLNVAANHPNASTVGLVLPPAAGAGGSRLLVGATYTYGYGSSFFPRNRSLEDHRFENTPEIAI  
RSLDTRGDLAKLFTFDLNPSSDDNILKIKQGAKEQHKLGFVSAFLHPSDPPPGAQSYAYLALNSEARAGDKESQAR  
SLLARICLPHGAGGDAKKLTESIQLGLQCAGGAGRGDLYSRLVSFPARERLFAVFERPQGSFAARAAPALCA  
FRFADVRAAIRAARTACFVEPAPDVVAVLDSVVQGTGPACERKLNIQLQPEQLDCGAHLQHPLSILQPLKATPV  
FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNESMQVVSRRVTVAYGEPVHHVMQFDPADSVLYLMTSHQ  
MARVKVAACNVHSTCGDCVGAADAYCGWCALETRCTLQQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE  
YPGMILQISGSLPSLSGMEMACDYGNINRTVARVPGPAFGHQIAYCNLLPRDQFPFPFPNQHVTVEMSVRVNGR  
NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWCSQQHSCVSNQSRCEASPNPTSPQDCPRTLPLAPVPT  
GGSQNILVPLANTAFFQGAALCESFGLIEIFEAVVWNE SVVRCDQVVLHTRKSQVFP LSLQLKGRPARFLDSPE  
PMTVMVNCAMGSPDCSQCLGREDLGHLCMWSDCRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN  
LGRRLSDVAHVGVWIGGVACEPLPDRTYVSEEIVCVTGPAPGLSGVVTVNASKEGKSRDRFSYVPLVHSLSEPTM  
GPKAGGTRITIHGNDLHVHSELQVLVNDTDPCTELMRTDTSIACMP EGALPAPVPCVRFERRGCVHGNLTFWY  
MQNPVITAISPRRSPVSGRTITVAGERFHMVQNVSMVHHI GREPTLCKVLNSTLTICPSGALSNASAPVDF  
INGRAYADEVAEAEELLDP EEAQGRSRFLDYLNPQFSTAKREKWI KHHPEPLTLVIHKEQDSLGLQSHYRV  
KIQGVSCDIQIVSDRIIHCVSNE SLGAAVGQLPITI QVGNFNQTIATLQLGGSETAIIIVSIVCSVLLLLSVVAL  
FVFCTKSRAERYWQKTL LQMEEMESQIREEIRKGFAELQDMDTLTKELNRSQGI PFLYKHVFTRITFFPKCSS  
LYEERYVLP SQT LNSQGSQAQETHPLLGEWKIPESCRPNMEEGISLFSLLNNKHFLIVFVHALEQQKDFAVRD  
RCSLASLLTIALHKGLEYYSIMKELLVDLIDASAANKPKMLLRRTESVVEKMLTNWMSICMYSCLRRET VGEPPF  
LLLCAIKQQINKGSIDAITGKARYTLNEEWLLRENIEAKPRNLNVFSQCGCMSLSVRAMDTDLTQVKEKILEA  
FCKNVPYSQWPRAEDVDLEWFASTQSYILRLDDTSVVEDGRKKLNTLAHYKIPEGASLAMSLIDKKDNTLGRV  
KDLDTEKYFHLVLP TDELAEPKKS HRQSHRKKVLPEIYLTRLLSTKGT LQKFLDDLFKAILSIREDKPPLAVKYF  
PDFLEEQA EKRGISDPDTLHIWKTNSLPLRFWVNLKNPQFVFDIDKTDHIDACL SVIAQAQFIDACSI SDLQLGK  
DSPTNKLLYAKEIPEYRKIVQRYRYKIQDMP LSEQEMNAHLAEESRKYQNEFTNVAMAEIYKYAKRYRPQIMA  
ALEANPTARRTLQHKFQVVALMEDNIIECYSEA

## FIGURE 15A

CCCTTTTCTCCCGTTTGAAGAGACAATGCTACTTCAGTTTGGAGCACAACATATGATCAGCACATGGAAAT  
GTGGTAATTCGGATGCATTCTGTATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTAGAGGAGA  
GAGGAGGAGGAGGAGGCTGAGAGAGGAGGAGGGCGACGGGGGTGAGAAGGGGAGGCCCCCTCTGAGCGGGACGCCG  
GGACTCCCGCCCTCTCAAAATATATCCGTAGAAATGGAGAGGGACCCGGATCTCAGCCTTGAAGAAATCTTTTAGGG  
TCGAGGAGGTGCGAGACACCACTCCACCCACCCCGGAGGGTCCAGACTCCCTACTCCGAGCCACTGTGGCCA  
GCTCCACCCAGAAATTCAGGACTCGGGCGTGAAGAACTCAGAACCCCTCGGCCCGCATGTGGACTCCCTAAGCC  
AAGCTCTCCCAAGGCGCTCCCTCGGAGGGTGGAGCTCTCGGGCCCAAGCCGCGGAGCCGCTCTGGCCGCGCA  
CTGAGCTGTCCATTGACATCTCTGTCGAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCTCTCCGGTCTCGGGCTCA  
AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCAGGCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC  
AGGAGTCAGCCACCGGAGGATGGAGCCCCCTCGCTCCAAGGTCGCCGAGGTGCCCACTGCCCTTGCACCCGACG  
CAGCCCCAAGAGGGTGGAGATCCAGATGCCAAGCCTGCTGAGGCGCCACCCGCCACGCCAGCCAGCCAGACCT  
TGGAGAATTCAGAGCCTGCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCAAGCCCCAGCCCCCTGTGGCTG  
AGCTACACCCCGGAGGACGAGGCCACTGAGGCGGCTCCCACTGCGTTGGCGACATGGCCGACACCCCGAGAG  
ATGCGCGGCTCAAGCAGGCGCTGTCATCAGGAAACGAGAAGGCCCGGTGGAATTCGGCTACGTGGGAGTTGACT  
CCATCTGTGAGCAGCTCGCCGGAAGGCCATGAAGCAGGGCTTCAGTTCAACATCATGTGGTCTGGGCGACAGCG  
GCTTGGGTAATTCACCTTAACTCAACACCTCTTCAAAATCCAAATCAGCCGCGAAGTCTGGTGGAGCCACCTCAG  
AGGAGCGCATCCCAAGACCATCGAGATCAAGTCCATCAGCAGCATATAGAGGAGAAGGGCGTCCGGATGAAGC  
TGACAGTGAATGACACACCAAGGTTCCGGGACCCATCAACACGAGAACTGCTGGCAGCCCATCATGAAGTCA  
TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAGCGCATCCCGGACACCCGCG  
TCCACTGCTGCCTCTACTTCATCCCGCCACCGGCCACTCCCTCAGGCCCTTGACATCGAGTTTATGAAGACGC  
TGAGCAAGGTGGTCAACATCGTCCCTGTATCGCAAGCGGACACACTCACCTGGAGGAGAGGGTCCACTTCA  
AACAGCGGATCACCGAGACCTGCTGTCCAACGGCATCGAGTGTACCCCAAGAGGAATTTGATGAGGACTCGG  
AGGACCGGCTGGTGAAAGAGAAGTTCGGGGAGATGATCCCATTTGCTGTGGTGGGAGTGACCACAGATACCAAG  
TCAACGCAAGAGGATCCTTGGGAGGAAGCAAGTGGGTACCACTGAAGTTGGAACACCAACCATCATGTGATG  
TTGCCTACCTGCGGACCTTCTCATCAGGACGCATGACAGAACATCAAGGACATCACCAGCAGCATCCACTTCG  
AGGCGTACCGTGTGAAGCGCTCAACGAGGGCAGCAGCCATGGCCAAAGCGGTGGAGGAGAAGGAGCCAGAAG  
CCCCGGAGATGTAGACGCCCCCTGCCACCCCCGGATCCTGCCCCCAAGTCAATTCCTGCCCCCCCAGGCC  
TCCCACACCCCATTTTATTTTATATGATTTTCTCATTTTGTCATCGTTCGCCACCCCTTCGACATGCTGCCAGT  
AAACAAGGGAAGGGCGCTCCCTCCGAGTGAGTCAAGTGAAGGCCGCGGCTCCCCAGGTTGTGGGAGAGGCTGC  
ACTGGAGCCACAGGCGGGGTGAGAGCACCCACTGAATTGACATGACCTCTGTCCCCAGGCTGGCTCCCCGAG  
GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCTGCTGTGGGGTCTCAGTGGCGAGGCTTGGGGTGGGGC  
CAGGCTTCGCACTTCAGAGGAGCCAGTGGGCTGCACGCTCCCTTCAACCCCATCGGCCCTGTCCCTGGAGT  
GTGTCAGAGCCAGGGGAGAATGCAGCCACCAGGAGCACCTGGACCCCTGCCCGCCACATGGTGTGGCATCA  
CTCAGCCCTACCCCTGCCCTGCTCTAAGGGTAGAAAATCCAGGGTCCCCTGCCACCGACTGCCAGCCACTC  
CAAGCCCTTGGCAGCTGCCCTCCTTGGAGCAAGAAAGTGCCTTATCTCAGGCACTCGCAGACTCTGGCAGAT  
CGGGGACAGGCTGGAATGAGGAGGCGTCTTCACTCTCCCTGCCATCCCCCTCTCAGCCACCCCCGCCCCAC  
GGGTCTCAGGTGCTGCTGATGCGCTGGGATCTGATTGAGGATAAAAGGAAGGAGAGATGACCCCTACCCCTCA  
TCCCCAGTTTGAAGAGTCTAAGCAAGTAGTCTGGTGAGGAGCTGGGAGGAGGCCATCGGAAGTGCCAG  
AAGGAAGGTTGGCGGGGCGACGTGTGGGCCGTGGCTTGGGCTGGTCAAGTGGGCTGAGCTGCCCGGGCGCTGCC  
CTGCCAAAGTGACCAGGAAGTGTGTGTGTGCCATGTGTATGCGTGCCTCTGCTGTCTAGTGTCTGGGTTT  
GGCCCAAGACTGGGCTGTAGTTACATTAATGCCAGCCAGCCACCTTCCAGCTACCCCTCTGGCCCGGCGCT  
TGCTGACTCTCTGAGCTGGGAGGTTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTCTGCTGGCCCT  
CCCCCTCAGAGCCCATGTGAACGAACCCCTAGAAAAGGAGAACCGGGCTGACAGGCTGCACAGCTGAAG  
AGCAAGGTTTCTGTGGCAGCAGCCCGGCCCTCACCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTG  
CAGGGCAGATGACCAAGTCCCTTCTGCTTCTGTACCTGTCTGTCTCTGGGAGAAAGAGGGGCGTGTAT  
GAGACTCCACTCAGGTGACACATCAGCCAGGTGCATCTGAGGCACCGGGCTGAGCTGCTTGCAGGAGCAAGG  
TCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTGTCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCA  
CCCAAGAGGAGAAGGACCCCTCACCACCCCACTGGCGAGACAGTTTACTTGGCCACTTGGCATGTTTGTGCA

**FIGURE 15B**

AAACCAAGATTTTGAAGGAAATGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCAC  
TTGGCGCGGGGTGGGGTGGGGGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCCTGTAACCA  
GACTTTGAAAAATTGTCGTTTCATCAGGCTCTGTTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTG  
TCTTTTGTATAAATGACAAAGTGTGAAAATGATTTCCTGAAATAAATGTTCAAATGCAGAAACCCAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 16**

MERDRISALKRSFEVEEETPNSTPPRRVQTPLLRAVASSTQKFQDLGVKNSEPSARHVDLSQRSFKASLRV  
ELSGPKAAEPVSRRTLSIDISSKQVENAGAIGPSRFGKRAEVLGHKTEPAAPRRTEITIIVKPQESAHRMEPP  
ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLNSENAPVSQLQSRLEPKPQPPVAEATPRSQEATE  
AAPSCVGMADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRKAMKQGFENIMVVGQSGLGKSTLINTL  
FKSKI SRKSVQPTSEERIPKTI EIKSITHDIEEKGV RMKLTVIDTPGFGDHINNENCWQPI MKFINDQY EKYLQE  
EVNINRKKRIPDTRVHCCLYFIPATGHSRLPLDIEFMKRLSKVVNIVPVI AKADTLTLEERVHFQRITADLLSN  
GIDVYPQKEFDEDESDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTHCEFAYLRDLLIRT  
HMQNIKIDITSSIHFEAYRVKRLNEGSSAMANGVEEKEPEAPEM

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FIGURE 17

CCGCTTCCCCGCTCTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGGGAGTGGAAGCGGAGAAGCTCAAG  
TGGCCGCCAATGTCAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCTGAGGAGAACTTTCTTTCTTTGG  
ACGACATCCTGATGTCCACAGAGAAGCTGCCGGTGGCGACGGAGACCGGCATGCCTCGCCTTGGCGCTTTCTTCC  
TGGAGCGGAGCGCAGGCGCGAGACTGACAAACGGCTCCACAGGGTTCCAAGCTTGAATACCCCTTGTGGCTGG  
CAAAAGGACTTTTTGACAAACAGCGACGGATCCTTTCTGTGGAACATCCCAAGATCTACCAAGAGGGTTGGAGGA  
CTGTGTTCAAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTCTACGGGTTTGGCTCCCAGC  
TCCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTCCGCC  
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA  
GGGGCTTATTTCAAACAGGGCGAAAGGACTGAATGACTTTCAGTGTGGGAGAAGGGCGAGGCTTCTCAGATCA  
CAGCTTCCAACCTGCTTCAGAATTACAAGAAGAGAAAAATTCAGTGATATGGAAGACTGAAAGCCGGAAGAACACA  
GAATGGCTCCTCACAGAGTATCCCTCCGTGTGCTCTGATAGGAGCTGGTTGACCTTGTACAGAACCAAGATCC  
TGTCCCATTTTCATGGCTTATTTCTGTGGCCATAGAGAATTATAGGGAACGGACATGCTGGAGGATGTGGGTGT  
CCCTGGCTCTGTGAGTCTTCAGGACCGTCCACCCCTGCTGACCCACAGCCAGGCCCTTTAACCCAAGAACCCA  
TGGCCAAGGAGAAATCAAAGTCCCTTCTAAATAAGAACTCACTGCCATATAATATATACAGTAGAGTTGCAACTG  
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG  
GGTCATCGCTTGTTCACAAAATGCTCTTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA  
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGACAGGAGATTACCCAGTTTCCAAAAACA  
GTCGCCGAGATAAAGGAGGAAAAGGGAAGGCAGACGAATGGCATGGCTTTTACTAAGAAAAAGATGTTGGCCTC  
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAATGGTTAAAC  
TGAGCTTGTATTGCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTTCTACTCCCTGTCTAGAAAAGCTGTCA  
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACAGCCTGCATTACATCTGGAAGTCAGGACTT  
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAAATCTAACATTGCAAGTGAATGGGCAAGAGCCCTCCGTTGTG  
CTTTTTTTTCTCTTCAGTAACCTTTTGCAACATTATTGCATAGAAGATCCCTGACCAATTTACTAGGAACCTGGT  
TAAGCAAGCACTAATCTCTTTCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAAGAACAGGGTTCCCTGGG  
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACCTAGCAAAAATTTGCTTTGTCTTTG  
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA  
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTATAATTTGATTTTGTGCTAAATAAATG  
ATTGGCTTGTACATGAATATGTTCTGTACAAGTGCCTTTCAGTACTACTACAGATAATCAAGCTATCAGAAAT  
TGTGCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTATAGCAAAAAAAAAAAAAAAAAAAAAA

A

**FIGURE 18**

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPGSKLELPLWLAKG  
LFDNKRRIILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFGSQLLHFDSPENADISQSLLOTFIGRFRIM  
DSSQNAYNEDTSALVARLDEMERGLFQTGQGLNDFQCWEKGQASQITASNLVQNYKKRKFDTMED



## FIGURE 19

GTTTACGCTCTCGCTCCGGGCGGAAAGTGGGTCAGGGCCGGGCTGGCGAGCGCGAGCGGGGGCTGCAGATTCT  
TTCCACCATGGCCAGACGCCCGGAACAGCAGGGGCTGGCAGCTTCGTCTCTGAGTGCAGCCCGCCGAGACGCAGA  
TGCCCGGGCCGTGGCTCTAGCGAGGGCTCCTTCTGTAGCAGCCTGCACTCGGCCCCACCGGGGAGGGACTGCCGC  
TGCGGAGAGGAAGACGAGTGTGAGCGTGGGGCCAGCCCCCTGCTGGGACTGCAGTGCGGGCGGGCTGGGGGTGG  
GCAGGGCAGAGCCCCATGGAGCTCTCAGGGCTGCCCCAGCCTGGGCTCTCTTGCAGATTTCGACTGGGTCTGGG  
ATGACTTAAATAAGTCATCAGCCACCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCACATGAGTACAGCT  
GCGGCACAGCGGCCATCCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTC  
CCGTCTACGGCACACTCACCTTTTTCAAGAACAGGAAGTGTATAGGTGTGGCAGCCACCAAGCTGCAGACAAGA  
GATTCTACCCGATGGTGTGCTCCACGGCGGGCCGGAGCAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTT  
CCCTCCAGTACCTGTGCTGCCACCGCTGCGCCAGCTGCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGC  
TGCCGCCGGGGCTCAAGCAGGTGCTACACAACAGCTGGGCTGGGTCTGAGCATGAGTTGCAGCCGCCCAAGG  
CTCCAGTGTCCGATCCCCAGGCAGCAGCTCCGCCCCACCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGC  
GCTGCCGCCGGACCTGACTGACTTCCCAGTGGAAGTGCCTTCTTGGGCTGGGGCAGCCCCCTTTCCTCTGTCCCTT  
CTTCTCTGTCCCTTCCCTCCAGCCACACTCCAGGGCGGAGTTGGATGAGGCCCTCGGAGGGAGCCATCTCTT  
GCTCCCGAGGCTGGGACAGTCTTTCTGTGGGGGCTCTAGGGCCCTCTGCTGCTGTGCTGGGTGGGAAGCGGC  
TGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGACGAGAGCCTGGCTGGAGCCCCGCTTGTCTTTCCTAGAT  
GGTGGGCATCGGGACGTCCGATGTGGACCTGGACAAATACGCCACACGTTCTGCAGCCTGCTGGGCAGGGATGA  
GGACAGCTGGGGCTCTCTTACACGGGTGCGTGAGGCCAGGGTGGGGCGGGGCCGAGCCTGGAGCTCCCGGGCT  
CACTGCACCTGGCTGCCCCAGGCCTCCTCCACCACAAGGGCGACAAGACAGCTTCTCGTCGCGGTTGCGCC  
AGGGCTCCATCATTGGCGTGCACTGGACACCTGGCACGGCACACTCACCTTTTTCTAACTTGCTCTGCATGCT  
GTCAGGGCTGCCCCGCCGTATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAACACCC

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**FIGURE 20**

MEYSCGTAAIRGKELGEGQHFWEIKMTSPVYGTLTFFKNRKCIGVAATKLQNKRFYPMVCSTAARSSMKVTRSC  
ASATSLQYLCCHRLRQLRPDSDTLEGLPLPPGLKQVLHNKLGWVLSMSCSRRKAPVSDPQAATSAHPSSREPRP  
CQRKRCRRT

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**FIGURE 21**

AGAAATCAACTGCTTAGCCGGGTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG  
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG  
TGTACCTGTGTGGGTCTTACTGTGCAAGTCTCCTGATGCAAGTCTCACCTGTGCCAGGTGTACCTACCTGTGGC  
GGTCTCACCTGTGTGAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG  
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTATCTGCCAGGAGCAGACC  
CTGAGCCAAAGTTCCCTGTGCCCTTAGGCTCATTTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT  
TTTTATAATGGAAGACTGAGTTAAGCAGTGGGCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA  
CCTTGGGCAGGTGCTGCCAGGGGCCCTGAGCCCAGGCCCTCCACTCCCGCATCTCTGATGACCACCTCTGGGTGA  
GTGGAGGCATCTGCCCGCGCCAGTCAGGCCAGTGGTGAATGCCCCCATGCCACAGGACAGAAGCTGCTGGACT  
CACTGGCAGAGACCTGGGACTTCTTCTCAGTGACGTGCTGCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG  
GCAAGGAGCCATCGGTGCCACGTGGCCCTGCTGCACCTCCGGAATGCCATCACCTCAGTGTGAAGCTAGAGG  
ATGCGCTGGCCCGGGCCATGCCCCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGTGTCAGGGGGTACATG  
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGTGGTCCAGAAGGTGGTGTGCCATACCTGGGCA  
CCTACGGCCTCACTCCAGCGAGGGGCCCTTACCCATTCTGCACTCTGGAAGAGCGCTCTCCGCCGTCC  
GCTCGGGGACGTGCTGGCCAAGAACCCTGTGGTGCCTCCAAGAGCTACAACACGCCCTCTGCTGAACCCCGTGC  
AGGAGCACGAGGCGAGGGCGCGGCCGGCCGGTACCAGCATCCGCTGGCACTCTGTGTCGGAGATGACGTCTCT  
GCCCGAGCCTCAGGGCTTCTCCGACCCGCGCGGCCAGGGCCCCACCGGACCTTCAAGTCTCTCCCGGCCGCC  
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCCCTGAGCAGGGCTTGGAATCCACCCGACGT  
CCCTGCCCCGCTCCAGCCCGGAGAACCCTGGTGGACAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT  
TCATTGACTTTGGCCGGGGCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGCCGGCAGAGTGTGCTG  
GAGGCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCTCTGTGTGCGGGGTGTCCATGTGGCGTGTGTGTGA  
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTGCGCTCTGCTACCTGGCCTTGGTCACTTTGTATTTCT  
GTCTTGGTTGGAATAACCATCAGCCTTCTTGTCTGGCCCAAGTCTGTTTACGACATCTGAGTCAGCGTTTACCC  
AGGGGCGGGCCAGAGACGGGGCGGGCGCTCGCTCCACGCTCTCTGCCCCAGCCCTCTGGTGTCCACACC  
TGCCCAAGAGAAATGTAAACCCAGTGGGCTCTGCCACGCGGGGCCCAAGTGACCAGACTCCAGCACACCTGT  
CTCTCTCTGCTGGGGTGGCCATGGGGATGGAAGGGGTGGAATAAAACCTGTCAACCTGAAAAA

**FIGURE 22**

MAPMPTGQKLLDSLAETWDDFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA  
IVQMLLVLGQVHESRGVIEDYLRLETIVQKVVSPLYLGTYGLHSSEGPFTHSCILEKRLRRRSRGDVLAKNPVVR  
SKSYNTPLLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGFTGFRSSPAPHSGPCPSRLYPTT  
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRGSGMSDLEGSGGRQSVV

## FIGURE 23

GTTCGCGCTGCGCACCTGGCTCAGGTGAGCTGCCCGCCCCGCCGCGCGAGCCCCAGGTCTTGGCAGCAGCC  
CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCTCTGCCACGCTCTTGGATCAGTCT  
GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCTTGAGCCCCAGCCTGCCCGGAGGAGCCCCGGCTCAGAGC  
**CATGCC**AGGTGTCTGTGATAGGGCCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCCTGCCITGGG  
CAGCTCAGTGGCTCTGAAGTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT  
GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCTGGGTCAAGGCCAACCTGTC  
AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT  
CCAGAACATCAGCTTCTCCTCCTTACTCTTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCCTC  
CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA  
CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCCTACGCTCTCTACAGCGACTGCC  
CGAGGACCCGCAAGTTCTGTAACTTTCATCCTAAAGCCGCAGCTGGAGCGCGTTCGGGGCTACAAGCTCTTCCTGGA  
CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCGCTCAT  
CGTGGTGCTTTCGGACGCCCTTCTGAGCCGGGCTGGTGACGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT  
GGAGCTCACCCGCAGACCCATCTTCATACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGCGCTCCGCT  
GCTGCGCCAGCACCCGCCACCTTGGTGACCTTGTCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCCGATTTTG  
GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAGGAGACCCCCAGACGCGAGCTGCA  
GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC  
GGACCTGAGGGCGACCTGGGTGTCCGGGGGCTGTTTTGGAGAGCCATCAGCTCCACCGCACACCACTGGGGT  
CTCGCTGGGAGAGACCGGAGCAGCGAAGTGGAGCTCTCGGATCTCGGCTCGCGAAACTACAGTGCCCGCACAGA  
CTTCTACTGCCTGGTGTCAGGATGATATG**TAGC**TCCCACCCACAGTGCAGGATCATAGGGACAGCGGGGGCC  
AGGGCAGCGCGCTGCTCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCTGCCAGCAGCCC  
TGGGAAAAGGCTGTGGCTCAGGGCGCCTCCCACTGTCGAGAAAATAAGTCCTTTTGGATTCTGAAAAAAAAA  
AA

**FIGURE 24**

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSOPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS  
EVLVSSVLGVNVTSTEYGAFTCSIQNISFSSFTLQKAGPTSHVAASLLVLLALLLAALLYVKRLNVLLWY  
QDAYGEVEINDGKLYDAYVSYSDCPEDRKVFVNFILKPQLERRRGYKLFDDRDLLPRAEPSADLLVNLSRCRRLI  
VVLSDAFLSRAWCSSHFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLLLWRPGSVTPSSDFW  
KEVQLALPRKVRYRPVEGDPQTQLQDDKDFMLILRGRVPEGRALDSEVDPDPEGDLGVRGPFVFGEPSSAPHTSGV  
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

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FIGURE 25

GGCACGAGGGGAGCGCTTGTTGCTGCCTCGTACTCCTCCATTATCCGCCAATGAAGTGCCAGCGGAGCTGCA  
GCAGCCCGTCTCGTGGGCGCCGACGCTCCCGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCCTT  
AGTCATGAGGCTTTTAGACTTGTTTCAAGCGGGGATTATGCATCAGAAGCAATCAAGGAGCAGTTGTTGGTATT  
GATTTGGGTACTACCAACTCCTCGTGGCAGTTATGGAAGGTAAACGAGCAAAAGTGCTGGAGAATGCCGAAGGT  
GCCAGAACCACCCCTTCAGTTGTGGCCCTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGCCAAGCGACAG  
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGAATATGATGATCCTGAAGTA  
CAGAAAGACATTAAAAATGTTCCCTTTAAAAATTGTCGTCGCTCCAATGGTGATGCTCGGTTGAGGCTCATGGG  
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTTGATGAAGATGAAGAGACTGCAGAAAAATTACTTGGGG  
CGCACAGCAAAAAATGCTGTGATGCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT  
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCATGGCTAGAC  
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACCTTTTGATATTTCTATCCTGGAATTCAG  
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGAAGACTTTGACCAGGCCCTTGCTA  
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACAAGGCACTTCAGAGGGTA  
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA  
ATGGATTCTCTCGGACCCAAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGCTACTGATCTA  
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGGTGACATAGGAGAAGTG  
ATCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT  
AAAGCTGTAACCTCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGAGGTGTGTTGGCCGGCGATGTCAG  
GATGTGCTGCTCCTTGATGTCACTCCCCGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAACTTATT  
AATAGGAATACCATTATCCAAACCAAGAAGGCCAGGTATTCTTACTGCGCTGATGGTCAAAACGCAAGTGGAA  
ATTAAGTGTGTGAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGTTTACTTTGATTGGAATT  
CCACCAGCCCTCTGTGAGTTCTCTAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT  
GCTAAAGATAAAGGCACAGGACGCTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGAATTAAGCAAGATGATATT  
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGCGGAAAGAAGGAACGAGTTGAAGCAGTTAAT  
ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTG  
AACAAGCTGAAGAAGAGATTTCCAAAAAGAGGAGCTCTGGCTAGAAAAGACAGCGAAACAGGAGAAAAATATT  
AGACAGGCAGCATCCTCTCTCAGCAGGCATCATTTGAAGCTGTTGCAATGGCATACAAAAAGATGGCATCTGAG  
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAAATAATAGCAG  
AAATTTTGAAGCCGAAGGACAAACATATGAAGCTTAGGAGTGAAGAGACTTCTGAGCAGAAATGGCGCAACTTC  
AGTCTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTTCCTTAATTTGTAATTTAGTGACCATTAGCTAGT  
GATCATTTAATGGACAGTGATTCTAACAGTATAAGTTCAACAATTTCTATGTCCTAGCCTGTCAATTTTTCAGT  
TGCACTAAAAGGAGGTAGGATGAATTGATCATTTATAAGATTAACTATTTTATGCTGAAGTGACCATATTTTC  
AAGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCAATCCTAGACTTGAAATGAGACCACATATGGGGAT  
GAGATCCTTCTAGTTAGCCTAGTACTGTGTAAGTGGCCTGTATGTACATGGGGTCTTCAACTGAGGCCCTTGCAA  
GTCAAGCTGGCTGTGGCATGTTGTGAGTGGGGCAGAGGAATCTAGAACAATGGGAACCTTAGCTATTTATATTA  
GGTACAGCTATTTAAACAAAGGTAGGAATGAGGCTAGACCTTTAACTTCCTTAAGGCATACCTTTCTAGCTACCTT  
CTGCCCTGTGCTGGCACCACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAAAA  
AATACGAAGACCTCTTGAAAAAATAAAAAAAAAA

**FIGURE 26**

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRDYASEAIKGA VVGIDLGT TNSCVAVMEGKRA  
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQDKINVPFKIVRASNG  
DAWVEAHGKLYSPSIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATK DAGQISGLNVLRVINEPTA  
AALAYGLDKSEDKVIAVYDLGGGTDFDISILEIQGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK  
DNMALQVRREAAEKAKCELSSSVQTDINLPYLTMDSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV  
SKSDIGEVLVGGMTRMPKVQQTVDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL  
GGVFTKLINRNTIIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID  
ANGIVHVS AKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGI IHD TETKMEEFK  
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKL FEMAYKKMASEREGSGSGTGEQKEDQK  
EEKQ



GGCAGCAGGGGAGCGCTTGTTTGGCTGCCTCGTACTCTCCATTATATCCGCCATGAATAAGTGCACGCCGAGCTGCA  
GCAGCCCGTCTCGTGGGCGCCGACGCTCCCGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCCTT  
AGTCATGAGGCTTTTAGACTTGTTTCAAGCGGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT  
GATTTGGGTACTACCACTCTCGTGGCGAGTTATGGAAGGTAACGAGCAAAAGGTGCTGGAGAATGCCGAAGGT  
GCCAGAACCACCCCTTCAGTTGTGGCCCTTACAGCAGATGGTGAGCGACTTGTGGAATGCCGCCAAGCGACAG  
GCTGTCAACCAACCAACAATACATTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA  
CAGAAAGACATTAATAATGTTCCCTTTAAATTTGCCGTGCCCTCCAATGGTGATGCTGGGTGAGGCTCATGGG  
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTTGATGAAGATGAAGAGACTGCAGAAAAATTACTTGGGG  
CGCAGACAAAAAATGCTGTGATCAGATCCCAGCTTATTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT  
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAAATGAGCCACAGCTGCTGCTCTTGCCATGGCTTAGAC  
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGAAGCTTTTGATATTTCTATCCTGGAATTCAG  
AAAGGAGTATTTGAGGTGAATCCACAAATGGGGATACCTTCTTAGGTGGGAAGACTTTGACCAGGCCCTTGCTA  
CGGCACATTTGGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACCTTCAGAGGGTA  
CGGGAAGCTGCTGAAAGGCTAAGTGTGAACCTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA  
ATGGATTCTTCTGGACCCAAAGCATTGTAATATGAAGTTGACCCGTGCTCAATTTGAAGGAGATTGCACTGATCTA  
ATCAGAAGGACTATCGCTCCATGCCCCAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG  
ATTCCTGTGGGTGGCATGACTAGGATGCCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT  
AAAGCTGTCAATCCTGTATGAGGCTGTGGCCATTGGAGCTGCCATTCAAGGAGGTGTGTTGGCCGGCAGTGTCAG  
GATGTGCTGCTCCTTGATGTCACCTCCCCTGTCTCTGGGTATGAAACTCTAGGAGGTGCTTTTACCAAACTTATT  
AATAGGAATACCCTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGTGATGGTCAAAACGCAAGTGGAA  
ATTAAGTGTGTCAAGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGCTTTACTTTGATTGGAATT  
CCACCAGCCCCCTGTGGAGTCTCTCAGATTGAAGTTACATTGACATTGATGCCAATGGGATAGTACATGTTCT  
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGAATTAAGCAAGATGATATT  
GAAAATATGGTTAAAAATGCAAGAGAAATATGCTGAAGAAAGCCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT  
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCGAAGGACCAATTACCTGCTGATGAGTGC  
AACAAGCTGAAAGAAGAGATTCCAATAATGAGGGAGCTCTTGCTAGAAAAGACAGCGAAACAGGAAAAATATT  
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTTGAAGCTGTTTCGAAATGGCATACAAAAAGATGGCATCTGAG  
CGAGAAGGCTCTGGAAGTTCTGGCAGCTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAATAATAGCAG  
AAATTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCTGAGCAGAAATGGCGCAACTTC  
AGTCTTTTTACTGTGTTTTGTCAGTATTCTATATATAATTTCCCTTAATTTGTAATTTAGTGACCATTAGCTAGT  
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCAACAATTTCTATGTCCCTAGCCGTGCTATTTTTCAG  
TGCAATGTAAAGAGGGTAGGATGAATGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATTTTTC  
AAGGGGTGAACCATCTCGCACACAGCAATGAAGTAGTCATCCATAGACTTGAATGAGACCACATATGGGGAT  
GAGATCCTCTAGTTAGCCTAGTACTGTGTACTGGCCTGTATGTACATGGGGTCCCTTCAACTGAGGCCCTTGCAA  
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAAACAATGGGAAACTTAGCTATTATATTA  
GGTACAGCTATTAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCTTAAGGCATCTTTTCTAGCTACCTT  
CTGCCCTGTGCTGCGCACCTACATCCTTGATGATTGTCTCTTACCATTCTGGAATTTTTTTTTTTTTTAAATA  
AATACAGAAAGCATCTTGAAAAAAATAAAAAA

## FIGURE 28

MISASRAAAARLVGAAASRGPTAARHODSWNGLSHEAFRLVSRDYASEATKGAVVGIDLGTINSCVAVMEGKRA  
KVLNAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG  
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA  
AALAYGLDKSEDKVIAVVDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK  
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV  
SKSDIGEVLVGGMTRMPKVQQTVDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL  
GGVF TKLINRNTTIP TKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPAPRGVPQIEVTFDID  
ANGIVHVS AKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGI IHD TETKMEEFK  
DQLPADECNKLKEE ISKMRELLARKDSETGENIRQAASSLQQA SLKLFEMAYKKMASEREGSGSGTGEQKEDQK  
EEKQ

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FIGURE 29

GCCGTGTGCGCCACCATGGCTCCGACC GCCCGCGCCCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC  
TGTCGCTGCCCGTCCGCGCGGCCACTGCGTTCGCGGGGGGCGTCCCAGGCGGGGGCGCCCAAGGGCGGGTGC  
AGGCGCGGCCAACAGCATGTTGGTGGAAACCCCGAGTTCCCTCAAGGCAGGGAAGAGGCTGGCCTGCAGATCT  
GGCGTGTGGAGAAGTTTGATCTGGTGCCGCTGCCCAACACCTTTATGGAGACTTCTTCACGGGCGCGCCTAGC  
TCATCTCGAAGACAGTGCAGCTGAGGAACGGAAATCTGCAGTATGACCTCCACTACTGGCTGGGCAATGAGTGCA  
GCCAGGATGAGAGCGGGGCGCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCGGGCGCTGCACG  
ACCGTGAGTTCAGGGCTTCGATGTCGGCCACCTTCCTAGGCTACTCAAAGTCTGGCTGAAGTACAAGAAAGGAG  
GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGGTGCAGAGACTCTTCAGGTCAAAGGGCGGC  
GTGTGGTTCGTCGCCACCGAGGTACCTGTGCTCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCTCGACCTGG  
GCAACAACATCCACCACTGGTGTGGTTCCAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG  
GCATCCGGGACAACGAGCGGAGTGGCGGGCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCGAGGCGATGC  
TCCAGTGTCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAAGGAGGATGCGGCCAACCGCA  
AGCTGGCCAAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCTGCTCCCTCGTGGCTGATGAGAAACCCCT  
TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCTGGACCACGGCAAAAGATGGGAAAATCTTTGTCTGGA  
AAGGCAAGCAGGCAAAACCGAGGAGAGGAAGGTGCCCTCAAACAGCCCTTGACTTCATCACCAGATGGACT  
ACCCCAAGCAGACTCAGGTCTCGGTCTTCCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT  
GGCGGGACCCAGACCAGACAGATGGCTGGGCTGTCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC  
CCTTCAGCGCCGCCACCTGCACACCTTCACTGCCATGGCGGCCAGCAGGCGATGGATGACGATGGCACAGGCC  
AGAAACAGATCTCGAGAATCGAAGGTTCCAACAAGGTGCCCGTGGACCTGCCACATATGGACAGTTCTATGGAG  
GCGACAGCTACATCTTCTGTACAACATACCGCCATGGTGGCGGCCAGGGGCAGATAATCTATAACTGGCAGGGTG  
CCCAGTCTACCCAGGATGAGGTGCTGTCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC  
CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCGCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA  
TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCTGCCAGCACCCGCTCTTCCAGGTCCGCGCCA  
ACAGCGCTGGAGGCCACCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCACTGAACTCCAACGATGCCTTTGTTC  
TGAAACCCCTTCAGCCGCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCAGGAGC  
TGCTCAGGGTGTGCGGGGCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG  
GCGGGAAGGCTGCCTACCGCACATCCCCACGGCTGAAGGACAAGAAGATGGATGCCATCTCTCGCTCTTTG  
CCTGCTCCAACAAGATTGGACGTTTGTGATCGAAGAGGTTCTCGTGGTGAAGTATGCAAGGAAGACCTGGCAACGG  
ATGACGTATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTTGGAAGGATTCTCAAGAAGAAGAAAAGA  
CAGAAGCCTTGACTTCTGCTAAGCGGTATATCGAGACGGACCCAGCCAACTCGGATCGCGGGACGCCATCACCG  
TGGTGAAGCAAGGCTTTGAGCCTCCCTCTTTTGGGCTGGTTCCTTGGCTGGGATGATGATTACTGGTCTGTGG  
ACCCCTTGGCAGGGCCATGGCTGCTGGCTGGCTGCCAGGAGGGGCGAGGCCACCATGTCTACCGGTGAGTGGC  
TTTTGGAAGTGTCTTCCCTCAAAGAGGCTTAGAGCGAGCAGAGCAGCTCTGCTATGAGTGTGTGTGTGTGTGT  
GTGTGTGTCTTTTTTTTTTTTACAGTATCCAAAATAGCCCTGCAAAAATCAGAGTCTTGCAAAATTTGT  
TAAATGTGCTGTTTGGGAAATTAATCCAATAAAAAATTTTGAAGTGTG

**FIGURE 30**

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARNSMVVEHPEFLKAGKEPGLQIWRVEK  
FDLVPVPTNLYGDFFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ  
GFESATFLGYFKSGLKYKKGVAASGFKHVVPNEVVQRLFQVKGRVVVRATEVVPVSWESFNNGDCFI LD LGNNIH  
QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL  
YKVSNGAGTMSVSLVADENPFAQGALKSEDCFI LDHKGDKGIFVWKGKQANTEERKAALKTASDFITKMDYPKQT  
QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDDAATLHTSTAMAAQHGMDDGTGQKQIW  
RIEGSNKVPVDPATYGFYGGDSYIILYNYRHGGRGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR  
VVQKGEPAHLSLFGGKPMIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLFPKAGALNSNDFAVLKTPS  
AAYLWVGTGASEAEKTGAQELLRLVLAQPVQVAEGSEPDGFEALGGKAAAYRTSPRLKDKKMDAHPPLFACSNK  
IGRFVIEEVPGELMQEDLATDDVMLLDTWQVFWVVGKDSQEEKTEALTSAKRYIETDPANRRDRPTITVVKQG  
FEPPSFVGWFLGWDDDYWSVDPLDRAMAELAA

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**FIGURE 31**

CGCCCTGCTCTCGCGCCGGCGTCGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG  
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCGATGGCTGCGCAGGGAGAGCCCCAGGTCAGTTCAA  
CTTGATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTGACTGGTGAATTGAGAAG  
AAGTATGTAGCCACCTTGGGTGTGAGGTTCATCCCTAGTGTCCACACCAACAGAGGACCTATTAAGTTCAAT  
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCAGTGTGCCATC  
ATAATGTTTGATGTAACTCGAGAGTTACTTACAAGAAATGTGCCTAAGTGCATAGAGATCTGGTACGAGTGTGT  
GAAAAACATCCCATTTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCCAAATCCATTGTC  
TTCCACCGAAAGAAGAACTTTCAGTACTACGACATTTCTGCCAAAAGTAACACAACCTTTGAAAAGCCCTTCCTC  
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT  
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCAGACTTAGAGGTTGCTCAGACAACTGCTCTCCCGGATGAG  
GATGATGACCTGTGAGAAATGAAGCTGGAGCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGCTCTGTGATGTC  
AGCGGTGACGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG  
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT  
TTGGACGCAGTTGATTCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCAATATTCAGTGGTGAATCT  
TGTTTGTACTGTGCTATTCCTATTCCTTTTCTTTAGAAATCAGAATAAAGTGTGATTTCAAATAICTAAGCAAGTGA  
ACTCATCCCTTGTTTATAAATAGCATTGGAAACCACTAAAGTAGGGAAGTTTTATGCCATGTTAATATTTGAAT  
TGCTTGCTTTTATCACITTAATTTGAAATCTATTGGGTTAATTTCTCCCTAGTTTATTTTGTACATTTGAGCC  
ATGTCACACAACTGATGATGACAGTGCAGTATTCATTGTTTGAAGGGTTACATGGGTAAATATTAGT  
GCAGTTAAGCTAAAGCAGTGTGTTGCCACCTTCATATTGGCTAGGTAGGGTCACCTAGGGAAGCACTTGCTCAA  
AATCTGTGACCTGTGAGAATAAAATGTGGTTTGTACATATCAATAGATATTTTAAAGGGTAATATTTCTTTTA  
TGGCAAAAGTAATCATGTTTAAATGTAGAACCCTCAACAGGATGGAACATCAGTGGATGGCAGGAGTTGGGAAT  
TCTTGCTGTTAAAAATAATTACAAATTTTGCACCTTTTGTGTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC  
AAGCCG

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**FIGURE 32**

MAAQCEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL  
RDGYYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPVLGKNDIKDRKVKAKSIVFHRKKNLQYYDIS  
AKSNYNFEKPFLLARKKLIGDPNLEFVAMPALAPPEVVM DPALAAQYEHDLVAQTALPDEDDDL

[illegible]

**FIGURE 34**

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA  
AVDYQKVVREAVKHIGYDDSSKGF DYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM  
PLTIVLAHKLNAKLAE LRRNGTLPLWRPDSKTQVTVQYMQDRGAVLP IRVHTIIVISVQHDEEVCLDEMRDALKEK  
VIKAVVPKAYLDEDTIYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW  
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA  
AYGHFGRDSFPWEVPKKLKY



GGCAGCAGAGCGCCGCCCTCTACAGTAGTAGAAGCTGTCCGAGACTTGGCCATTTCGCAGCCGCTGCGCCCTGCCGCTGCTGCTTCGTTAAGGCCACTTCCGACACCCAGACACAACATGACACGGCAGCTCAACGGCTTCCACGAGGCCGTTCATCGACGGGGACCATTCCTTTTACCACTCAGAGTGGCTGGGGAAGGCCACCCAGATAGATTGTGTGACAAAATCGATGATGCTGTCTTGTATGCCCACTTACAGCAGGATCTGTGATGCCAAAGTAGCTTGTGAAACTGTGTCTGTAATCTGGAATGATCTTCTGTGGGAAAGTTTACATCACTTAATACATCACTTAATACATCACTTCTTGTGGGAAATTTACATCAGAGCTGCTGTGTGACTACCAAGTGGTGTCTGTGAAGCTTAAACATCTTGATATGATGATCTTCCAAAGGTTTTGACTACAAGACTTGTAACTGCTGTAGCCCTTGGAGCAACAGGATATGCTCAAGGTGTTCACTTGCATGAGTGTTCATTCGACAGATCTGGCTGAGGACAGCGGCTAAATGTTTGGCTATGCCATGTAGAACTGAGGAGTGATGCTTTTAAACCATTTGCTTGGCACAACGTAATATGCACAACTGGCAGAACTACGCGGTAATGGCACTTTGCTTTGTTACGCCCTGATTTCAAACCTCAAGTTACTGTGCGAGTATACAGGATCGAGGTGCTGTCTTCCCATCAGAGTCCACACAAATTTGTATATCTGTACGATGATGAAGAGGTTGTCTGTATGAAATGGAGGATGCCATAAGGAGCAAGATCATCAAGAGACTTGGCTGCGAAATACCTGTATGAGGATACAACTACCACCTACAGCCAGTGGCAGATTGTATTGTATTTGTTGTTGCTTGTGACCTGGAGGTGATGCTGGTGTGACTGGACGCAAAATCAATTGTGGACACTTATGGCGGTTGGGGTGCTATGGAGGAGGTGCCCTTTTCAAGGAAAGGATTATACCAAGGTCGACCGCTCAGCTGCTTGTCTGCTCGTCTGTTGGTGGCAAAATCCCTTGTTTAAAGGAGGTCTGTGCCGGAGGGTCTTGTTCAGGCTGTATGCTATGGAGTTTCTCATTAATCTATCTCCATTTTCCATATTGTTATGCTCCCTCAGGAAGTGCAGAGAGACTATTAGAGATTGTGAAGAAGAAATTTGCATCTCCGCCCTGGGGTGCTATTGTACGGGATCTGTGAAGAAGCCAATTTATCAGAGGACTCGAGGCTATGGCCACTTTGGTAGGGACAGCTTCCCATGGGAGTTCGCCAAAAGGCTTAATAATTGAAAGAGTTGACGATTTTTTCCCCGACCTTGTGGGCTAGGCTACAGAGAACGCTTGCAAGCTCTGAGGGAAGGGCCCTCTTCTCAAAATTTTCTGTGCTCTTTCAGTCTCTGACGCTACGAGTTCGATCTCAGCTCTAGCTATGACATGAAATTTAGCTTTTGTGGGGACTGTAAAGTTGGGCTGTGATTTCTGTCCCTTAGGTGTGTTTCTCAATTAATGAAATTTAGTGAGCATGTAGTATCCATGTAAGCTCGTAGAAACCAACACTGATGTAAATAGTGTGAAATGAGGAACTTTGTGCCCTATCCACCAGGCTCCAAAGTCAATAATGCAITGACTTCCCCACAGATGTGCGAAATGCTCTTGTGATGTGACAGTAAAGTACTTGTAGTTCCATATAGGCTCTGTCTGTCCCAATGCCACAGCCCTGTCAGCATGAAATTTGATGTGCTTGAGCTCTATTATGAACTGTGAAGCTTCCCTCTATCTCCCTGTAACTTGTATCTTTTAATATGTAGTCTTTGTCCAGGAGGTGTCCCTATCCAACTCAATCTTGCATGTAAACGCAAGTCCCAAGTTGGAGCTCCAGCTGACATCAAAAAGGCAGTTACCAATAAACCACTCCCTGGTGTATGCTCTTAATTTGGCCACTTCAACAGCAAAATCAAATCTCTGACGTTCTTGGAGAGGCTAGCTAATAGGTTTTAATTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCACCTCTAGTCTTAGAAAAACCAAGCTTGGCAGCTGTGATGTTCATACAGAAAGTCAAGGACGTTACCTGAGGCTGTAGGTTGCACACITTTGGTACAGATAACTTTTTTTTTTCTATAAGAAAGCGCTGAGGACTCCACATGCACAAATACCTCTCCAGGTTTTAACTTTGTTTATTTTCAAAACAGCGTCCAAATGAGCTTTTGAACAGCTGGGTGAGTCAACAGAAACCCAGCTCTCTCAGAGAGCAGTGTGTTTTGGCGGGTGAAGAAATCCCTTCTATCTGAACTGTTTTCTAATGTTCTATTATTTGTATCTTGGGTTATGGCGTAGTACAGAGAAGCCATCTCAGTACAGTGGCAGTTTTAAAGATTGTTTTTTTTTCTTCAACCATGATTTCTTAAACAAATGTTTCCAGCAATGCCAGGTAGGCCAGTGTGCTCTACAGAAAAAACCCTTGGGTTAGACCTACAGGGGCTTGCTGGTGTGTTAAACAGGAAGGCGAGCTGGTGGCGCTGGCCATGGAGAAAGCTGACTTGGCTGGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCATGACTGCTTGCCCTAAGCAAGAAAGTCCCTTCAGGATCTATTTTTGGAGTTTTATTACGATGTGCTGGTGTCTCAATTCCEACAGTTTAAAGATCTTAAATAAAGCTGAGGTTCTACCTTAAAAAATAAAAAA

**FIGURE 36**

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA  
AVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM  
PLTIVLAHKLNAKLAELERRNGTLFWLRPDSTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEMMDALKEK  
VIKAVVPAKYLEDETIYHLQPSGRFVIGGFQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW  
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA  
AYGHFGRDSFPWEVPKKLKY

## FIGURE 37

GTCTAGTCCCTCTGTAGCCGCGCGCGCGCGCGCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG  
GCGTCTCCGGCGGGCGGAGCCAGCGCTGACGGGCGCGCGGGGCGGCCGAGCGCTCTCGGGTGCAGCTCA  
GGCTCCGGCGTCTCGGCTTCCCCATGGGCTGGCCTCGCGCGCTCGGCGCTCTGAGATTGCTACTGCTGTTCCA  
AGGCGCACCGCAGAGGGATTGGGAATTCCTGGAGAGTTGCCCTTTGTGAGAAGCTGGAATATTCTTTCAATTCC  
ATCTCTTAGTTTTCCATAGGAACATCAAGAAATC**ATGA**ACAACCTTTGGTAATGAAGAGTTTGACTGCCACTTCCT  
CGATGAAGGTTTTACTGCCAAGGCATTCTGGACCAGAAAAATTAATGAAGTTTCTTCTCTGATGATAAGGATGC  
CTTCTATGTGGCAGACCTGGGAGACATTCTAAGAAACATCTGAGGTGGTTAAAGCTCTCCCTCGTGTCACCCC  
CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCTTGCTGCTACCGGGACAGGATTTGACTG  
TGCTAGCAAGACTGAAATACAGTTGGTGACAGTCTGGGGTGCCCTCCAGAGAGGATTATCTATGCAAAATCCTTG  
TAAACAAATATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT  
GATGAAAGTTGCCAGAGCACATCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTCCAAAGCAGTCTG  
TCGCTCTAGTGTGAAATTCGGTGCCAGCTCAGAACCAGCAGGCTCCTTTTGGAAACGGGCGAAGAGCTAAATAT  
CGATGTTGTGGTGTCAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA  
TGCCCGCTGTGTTTTGACATGGGGGCTGAGGTTGGTTTACGATGTATCTGCTTGATATTGGCGGTGGCTTTCC  
TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATACCCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC  
GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGAGTTAA  
TATCATTTGCCAAGAAATTTGATTAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT  
TATGTATTATGTGAATGATGGCGTCTATGGATCATTTAATTGCATACTCTATGACCACGCACATGTAAAGCCCT  
TCTGCAAAAGAGACCTAAACCAGATGAGAAGTATTATTATCCAGCATATGGGGACCAACATGTGATGGCTTCGA  
TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA  
CACTGTTGCTGCTGCTCTACGTTCAATGGCTCCAGAGGCCGACGATCTACTATGTGATGTCCAGGCGCTGCGTG  
GCAACTCATGCAGCAATTCCAGAACCCTGACTTCCACCCGAAGTAGAGGAACAGGATGCCAGCACCTTGCTGT  
GTCTTGCTGCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCTGTGCTTCGGCTAGTATTATGTG**TAG**ATAGC  
ACTCTGTAGCTGTTAACTGCAAGTTTACGTTGAATTAAGGATTTGGGGGACCATGTAACCTAATTACTGCTA  
GTTTTGAATGTCTTTGAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTCACACTTA  
TCTGTGTTCTATGAAACTATTGAAATTTGTTTTATATGGATTTTATTCACTCTTCAGACACGCTACTCAA  
GAGTGCCCTCAGCTGCTGAACAAGCATTGTAGCTTGACAATGGCAGAATGGGCCAAAAGCTTAGTGTGTGA  
CCTGTTTTTAAATAAGATATCTTGAATAATTAGGC

**FIGURE 38**

MNNFGNEEFDCHFLDEGFTAKDILDQKINEVSSDDKDAFYVADLGDI LKKHLRWL KALPRVTFFYAVKCND SKA  
IVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVELMKVARAHPKAK  
LVLRIATDDSKAVCRLSVKFGATLRSLRLLERAKELNIDVVGVSFHVSGGCTDPETFVQAISDARCVFDMGAEV  
GFSMYLLDIGGGFPGSEDEVKLKFEEITGVINPALDKYFPDSGVRIIAEPGRYYVASAFTLAVNIIAKKIVLKEQ  
TGSDDDEDESSEQTMYYYVNDGVYGSFNCILYDHAHVKPLLQKRKPDEKYYSSSIWGPTCDGLDRIVERCDLP  
EMHVGDWMLFENMGAYIVAAASTFNQFORPTIYYVMGPAWQLMQQFQNPDPFPEVEEQDASTLPVSCAWESGMKRH  
RAACASASINV

## FIGURE 39

CACGCTTGCCGCCGCCCGCAGAAATCCTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCACGGGTA  
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAATTTGGTGACATGCCCGAGCCTTAATGCTTCAA  
GGTGATAGCCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT  
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAATACAAGAAC  
ATTGGAGCTAAACTTGTTCAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACCTGCTACT  
GTACTGGCAGCCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAAATCCAGTGGAAATCAGGAGA  
GGTGTGATTTAGCTGTTGATGCTGTAATTGCTGAACCTTAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA  
ATTGCACAGGTTGCTACGATTCTGCAAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA  
GTTGGAAGAAAGGGTGTCATCAGATAAAGGATGGAAAAACACTGAATGATGAATTAGAAAAATTATTGAAGGCATG  
AAGTTTGATCGAGGCTATATTTCCATACCTTTATTAATACATCAAAGGTCAGAAATGTGAATTCAGGATGCC  
TATGTTCTGTTGAGTGAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAAATGCTCAC  
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAG  
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAAGAACAGCTTAAAGATATGGCT  
ATTGCTACTGGTGGTGCAGTGTGAGAGAAGAGGGATTGACCCCTGAATCTTGAAGACGTTACGCCCTCATGACTTA  
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT  
GAAAAACGTAATCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA  
CGGCTTGCAAACTTTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGCAAGTGATGTTGAAGTGAATGAAAAG  
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTGGGAGGGGTTGT  
GCCCTCCTTCGATTCGATTCAGCCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTTGGTATAGAAATT  
ATTAAGAAGACACTCAAAATTCAGCAATGACCAATTGCTAAGAATCAGGTTGTTGAAGGATCTTTGATAGTTGAG  
AAAATTATGCAAGTTCCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA  
ATCATTGACCCAAACAAAGGTTGTGAGAAGTGCCTTTATTGGATGCTGCTGGTGTGGCTCTCTGTTAACTACAGCA  
GAAGTTGTAGTCACAGAAATTCCTAAGAAGAGAAGGACCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT  
ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAAGCTGTGACAGGAAGCCCAAGGC  
AGTGTTCCTCACCATAAATCTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAGGCTGGCTGAAAATCACTATAA  
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT  
ATTTGTATTTTGAATAAAAAACATTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCACTGTACTGCT  
TTCAACTTAAATCACTGAGGCATTTTACTACTATTCTGTTAAATCAGGATTTTAGTGCTTGCACACCACAGAT  
GAGAAGTTAAGCAGCCTTCTGTGGAGATGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA  
ACCTTTGTGTAATAAAATTTGTTTAA

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**FIGURE 40**

MLRLPTVFRQMRPVSRLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVII EQGWGSPKVTK  
DGVTVAKSIDLKDYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGF EKISKGANPVEIRRGVMLAVDA  
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIIEGMKFDRGYIS  
PYFINTSKGQKCEFDQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIIAEDVDGEALSTLVLNRLKVGLQVVAV  
KAPGFGDNRRKNQLKDMAIATGGAVFGEGLTLNLEDVQPHDLGKVG EVIVTKDDAMLLKGKGDKAQIEKRIQEI  
EQLDVTTSEYEKEKLNRLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA  
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVKEGIIDPTKVV  
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGMGGMGMF

## FIGURE 41

CACGCTTGCCGCCGCCCGCCGAGAAATGCTTCGGTTACCCACAGTCTTTGCCAGATGAGACCGGTGCCAGGGTA  
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAGATGTAAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA  
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTATTATTGAGCAGGGT  
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCCAAGTCAATTGACTTAAAAAGATAAATACAAGAAC  
ATTGGAGCTAAACTTGTTCAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACCTGCTACT  
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATCAGGAGA  
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACCTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA  
ATTGCACAGGTTGCTACGATTCTGCAACCGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAAA  
GTTGGAAGAAAGGGTGTCACTACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATATTATGAAGGCATG  
AAGTTTGTACGAGGCTATATTTCCATACCTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCAGGATGCC  
TATGTTCTGTTGAGTGAAAGAAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC  
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAG  
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAAGAACAGCTTAAAGATATGGCT  
ATTGCTACTGGTGGTGCAGTGTGAGAGAAGGGATTGACCCCTGAATCTTGAAGACGTTACGCTCATGACTTAA  
GGAAAAGTTGGAGAGGTCATTGTGACCAAGACGATGCCATGCTCTTAAAGGAAAAGGTGACAAGGCTCAAAT  
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACCTAGTGAATATGAAAAGGAAAAACTGAATGAA  
CGGCTTGCAAACTTTAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTATGTTGAAGTGAATGAAAAG  
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTGGGAGGGGGTTGT  
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTTGGTATAGAAAT  
ATTAAGAAGCACTCAAATTCAGCAATGACCATTGCTAAGAATCAGGTTGGAAGGATCTTTGATAGTTGAG  
AAAAATTATGCAAGTTCCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA  
ATCATTGACCCAACAAGGTTGTGAGAATGCTTTATTGGATGCTGCTGGTGGCCCTCTCTGTTAACTACAGCA  
GAAGTTGATGTCACAGAAATTCCTAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT  
ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAACCTGTGACAGGAAGCCCAAGGC  
AGTGTTCCTCACCATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAAGGCTGGCTGAAAATCACTATAA  
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGCTATTGTCATGCTACAGATAATTT  
ATTTTGTATTTTGAATAAAAAACATTGTACATTCCTGATCTGGGTACAAGAGCCATGTACCAGTGTACTGCT  
TTCAACTTAAATCACTGAGGCATTTTACTACTATTCTGTTAAATCAGGATTTTAGTGCTGCCACCACAGAT  
GAGAAGTTAAGCAGCCTTTCTGTGGAGATGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA  
ACCTTGTGTGAATAAAAAATTTGTTTAA

**FIGURE 42**

MLRLPTVFRQMRPVSRLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIIEQGWGSPKVTK  
DGVTVAKSIDLKDKYKNI GAKLVQDVANNTNEEAGDGT TTATVLARSIAKEGFEKISKGANPVEIRRGVMLAVDA  
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIIEGMKFDRGYIS  
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALETANAHRKPLVIIAEDVDGEALSTLVLNRLKVGLQVVAV  
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEI I  
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA  
LDSLTPANEDQKIGIEIIKRTLKIPAMTIKKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVV  
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGGMGGGMF



## FIGURE 43A

AGCGCCGCCGCGTCCGGGGCCGGCTGGTGCAGAGACGCCGCCGAGAGTTGTGAAGGCGCGGGTGGGGGGCGC  
TGCCGGCCCTCGTGGGTACGTTCTGTCGCCGCTCTGTCCAGAGCTGGGGCCGAGGAGCGGAGGCAAGAGGGGCAC  
**TATGGC**AGACAAAGTTAGGAGCGAGAGGCCGAGGAGGCGAGTCTGTTGGGCCCTGGTGGCTGTGCTCTTGGCACA  
CCTGTTGGCACTGTAGTGATACACTGGCAGTGATGCTCTGTGGACCTGGGCACTGAGTCCATGAAGGTGGCCATTGT  
CAAACCTGGAGTGCCCATGGAATTTGTCTGAATAAGGAATCTCGGAGGAAAAACCCGGTGATCGTGACCCCTGAA  
AGAAAAATGAAGAGTCTTTTGAGACAGATGCAGCAAGCATGGGCATTAAGAATCCAAAGGCTACGCTACGTTACTT  
CCAGCACCTCTCTGGGGAAGCAGGCAGATAACCCCATGTAGTCTTTTACAGGCCCGCTTCCCGGAGCACGAGCT  
GACTTTCGACCCACAGAGGCAGACTGTGCATTTTCAGATCAGCTCGCAGCTGCAGTTCTCACTGAGGAAGTGT  
GGGCATGGTTCTCAATTAATCTCGTTCTCTAGCTGAAGATTTTGCAGAGCAGCCCATCAAGGATGCGATGATCAC  
CGTGCCAGCTCTCTTCAACAGGCCGAGCGCCGAGCTGTGCTGCAGGCTGCTCGTATGGCTGGCCTCAAAGTGCT  
GCAGCTCATCAATGACAACCCGCACTGCCCTCAGCTATGGTGTCTTCCGCCGGAAGATATTAAACCCACTGC  
CCAGAATATCATGTTCTATGACATGGGCTCAGGCAGCACCGTATGCACCATTTGTGACCTACCAGATGGTGAAGAC  
TAAGGAAGCTGGGATGCAGCCACAGCTGCAGATCGGGGAGTAGGATTTGACCGTACCCTGGGGGGCCGTGGAGAT  
GGAGCTCCGGCTTCGAGAAGCCCTGGCTGGGCTTTTCAATGAGCAGCGCAAGGGTCAGAGAGCAAGGATGTGCG  
GGAGAACC CGCTGCCATGCCAAGCTGCTGCGTGAGGCTAATCGGCTCAAAACGCTCTCACTGAGTCAACGCTGA  
CCACATGCCAGAGATTGAAGCCCTGATGGATGATGTGGAGCTTCAAGGCAAAAGTAGCTCGTGTGGAATTTGAGGA  
GTTGTGTGCAGACTGTGTTTGAAGCGGTGCTGGGCTGTACAGCAGGCCCTCAGAGTGCCGAAATGAGTCTGGA  
TGAGATTGAGCAGGTGATCTCTGTGGTGGGCCACTCGGCTCCCGAGAGTTGAGGAGGTGCTGTGAAGGCCCT  
GGGCAAGGAGGAGCTGGGGAAGAATCAATGAGATGAAGCAGCCGCCATGGGGGAGTGTACAGGCAGCTGC  
GCTCAGCAAGCCCTTTAAAGTGAAGCCATTGTGCTCCGAGATGCAGTGGCTACCCCATCTCGTGGAGTTTAC  
GAGGAGGTGGAGGAGGACCTGGGATTACAGCTTCAAGCACAATAAACCGGTACTCTTCTCGGATGGGGCC  
CTACCTCAACGCAAAGTCATACCTTTAACCGCTACAGCCATGATTTCACTTCCACATCAACTACGGCGACCT  
GGGCTCTCTGGGGCTCGAAGATTTCTGGGTATTTGGCTCCGAGAATCTGACCACAGTGAAGCTAAAAGGGGTGGG  
TGACAGCTTCAAGAAGTATCTCTGACTACGAGTCCAAGGCCATCAAGGCTCACTTCAACCTGGATGAGAGTGGCT  
GCTCAGTCTAGACAGGGTGGAGTCTGTATTGTAGACACTGGTAGAGGACAGCGAGAGAGGAATCTACTCTCAC  
CAAACCTGGCAACACCATTTCCAGCCTGTTTGGAGGCGGTACCACACCAGATGCCAAGGAGAATGGTACTGATAC  
TGTCAGGAGGAAGAGGAGAGCCCTGCAGAGGGGAGCAAGGACGAGCTGGGGAGAGGTTGGAGCTCAAGGAGGA  
AGCTGAGGCCCCAGTGGAGGATGGCTCTCAGCCCCACCCCTTGAACCTAAGGGAGATGCAACCCCTGAGGGAGA  
AAAGGCCACAGAAAAAGAAAAATGGGGACAAGTCTGAGGCCCAGAAACCAAGTGAAGAGGCAGGCGGCCCTGA  
GGGCTCGCTCCAGCCCCAGAGGAGGAGAAGAACAGCAAGGCCCGCCAGGAAGCGGCGAATGGTAGAGAGATCGG  
GGTGGAGCTGGTGTGTTCTGGAACCTGCTGACTGTGCCAGAGGATAAGCTGGCTAGCTCGGTGCAGAACTTCAGGA  
CTTGACACTTCCGAGACCTTGAGAGAGCAGGAACGGGAAAAAGCTGCCAACAGCTTGAAGAGCGTTATATTGAGAC  
CCAGGACAAGCTGTACCAGCCCGAGTACCAGGAAGTGTCCACAGAGGAGCAGCGTGAGGAGATCTCTGGGAAGCT  
CAGCGCCGATCCACCTGGCTGAGGATGAGGGTGTGGAGGCCACCAAGATGATGTTGAAGGAGAAAGCTGCTGTA  
GCTGAGGAAGCTGTGCCAAGGGCTGTTTTTTCGGTAGAGGAGCCGACAGAGCTGGCCGCAACGGCTGTCTGCCCT  
CGATAATCTCCTCAACCATTCAGCATGTTCTTCAAGGGGGCCCGGCTCATCCAGAGATGGAACAGATCTTCAC  
TGAGGTGGAGATGACAACGTTAGAGAAGTCATCAATGAGACCTGGGCTGGAAGAATGCAACTCTGGCCGAGCA  
GGCTAAGCTGCGCGCCACAGAGAAGCTGTGTGCTCTCAAAAGACATTGAAGCTAAGATGTGGAGAGGGGGAAG  
AGAGGTGACGATCTGTCTCAATAGGCCAAGTTTACCAAGCCCCGGCCCGGCTTGAAGACAAGAAATGGGACCCG  
GGCAGAGCCACCCCTCAATGCCAGTGCCAGTGACCAGGGGGAGAAGGTCACTCCCTCCAGCAGGCCAGACTGAAGA  
TGACAGAGCCATTTCAGAACCTGAGAAAGTAGAGACTGGATCCGAGCCAGGAGACACTGAGCCTTTGGAGTTAGG  
AGGTCTCGAGCAGAACTGAACAGAAAGAACAAATCAGCAGGACAGAAAGCGGCTTTGAAGAACGACCAACTA**TA**  
**A**CCCCCACTCTGTTTTTCCCATTCATCTCCACCCCTTCCCCCACTTCTATTATTAACTCGAGGGTGT  
GGGAGGGGTGGCTGCCCCGCTGGCTGGAGTTCTTTCTACCCCTGTGATTTGGAGGTGTGGAGAGGGGGAAG  
GGAGGGACAGCTCACTGGTTCTTCTGCAGTACTCTGTGGTTAAAAATGGAAGCTGCTCTCTCCCGCCCA  
CTCCCTGTCTCCCTACCATATAGGCCCTAAATTTGGGAAAAATCACTATTAAATTTGAAATCTTGGCTGGGG  
TAGGAAGAGAAATGGCTGCCAGTGCTGATGGTCCCGGTGATGGGAAGGGTATCAGGTTGCTGGGGAGTTTCCAC  
TCTTCTCGTGATTTGTTCTTCCCTCCCTTCTCTCCACCATGCGATGAGCATCTTTCAGGCCAGCTGTCTGC

**FIGURE 43B**

AGAGCCTCAGTTACCAGTTTGGTTTCTGAGTGCCTATCTGTGCTCTTTCTCCCTCTGCGGGCTTCTCTTGCTC  
TGAGCCTCCCTTCCCCATTCCCATGCAGCTCCTTTCCCCCTGGGTTTCTTTGGCTTCTGCAGCAAATTGGGCAG  
TTCCTGTGCCCCTTGCCTAAAAGCCTGTACCTCTGGATTGGCGGAAGTAAATCTGGAAGGATTCTCACTCGTATTT  
CCCACCCCTAGTGGCCAGAGGAGGGAGGGGCACAGTGAAGAAGGGAGCCACCACCTCTCCGAAGAGGAAAGCCA  
CGTAGAGTGGTTGGCATGGGTGCCAGCATCTGCAAGCTCTGTCATAATCTGCATCTTCCCAGCAGCCTGGTAC  
CCCAGGTTCTGTAACTCCCTGCCCTCCTCCTCTCTTCTGCTGTTCTGCTCCTCCAGACAGAGCCTTTCCCTCAC  
CCCTGACCCCTGGGCTGACCAAAATGTGCTTTTCTACTGTGAGTCCCTATCCCAAGATCCTGGGGAAGGAGAG  
ACCATGGTGTGAATGTAGAGATGCCACCTCCCTCTCTCTGAGGCAGGCCTGTGGATGAAGGAGGAGGGTCAGGGC  
TGGCCTTCCTCTGTGCATCACTCTGCTAGGTTGGGGGCCCCGACCCACCATACCTACGCCTAGGGAGCCCGTCC  
TCCAGTATTCGCTCTGTAGCAGGAGCTAGGGCTGCTGCCTCAGCTCCAAGACAAGAATGAACCTGGCTGTGTCAG  
TCATTTTGTCTTTTCTTTTTTTTTTTTTTGGCACATTGGCAGAGATGGGACCTAAGGGTCCCACCCCTCACCCCA  
CCCCACCTCTTCTGTAITGTTGAATTCTTTCAGTAGCTGTTGATGCTGGTTGGACAGGTTTGAGTCAAATTGTA  
CTTTGCTCCATTGTTAATTGAGAACTGTTTCAATAAAATATTCTTTTCTAC

**FIGURE 44**

MADKVRRRQPRRRVCWALVAVLLADLLALSDTLAVMSVDLGSESMKVAIVKPGVPMETVLNKNESRRKTPVIVTLK  
ENERFFGDSAASMAIKNPKATLRYFQHLLGKQADNPHVALYQARFPEHELTFDPQRQTVHFQISSQLQFSPEEVL  
GMVLNYSRSLAEDFAEQPIKDAVITVPVFFNQAERRAVLQAARMAGLKVQLINDNTATALS YGVFRRKDINTTA  
QNIMFYDMGSGSTVCTIVTYQMVKTKEAGMQPOLQIRGVGFDRTLGGLEMELRRLRERLAGLFNEQRKGQRAKDVR  
ENPRAMAKLLREANRLKTVLSANADHMAQIEGLMDDVDFKAKVTRVEFEELCADLFRVPGPVQQALQSAEMSLD  
EIEQVILVGGATRVPRVQEVLLKAVGKEELGKNINADEAAAMGAVYQAAALS KAFKVPFVVRDAVVYPILVEFT  
REVEEEPGIHSLKHNRVLF SRMGYPQORKVITFNRYSHDFNFHINYGDLGFLGPEDLRVFGSQNLTTVKLGVG  
DSFKKYPDYESKGIIKAHFNLDSEGVLSLDRVESVFETLVEDSAEEESTLT KLNGTISSLFGGGTTPDAKENGTD  
VQEEEESPAEGSKDEPGEQVELKEEAEPVEDGSQPPPEPKGDATPEGEKATEKENGDKSEAQKPSEKAEAGPE  
GVAPAPEGEKKQK PARKRRMVVEEIGVELVVLDLPDLPEDKLAQSVQKLQDLTLRDLEKQEREKAANSLEAFIFET  
QDKLYQPEYQEVSTEEQREEISGKLSAASTWLEDEGVGATTVMLEKLAELRKLCQGLFFRVEERKKWPERLSAL  
DNLLNHSSMFLKGARLIPEMDQIFTEVEMTTLEKVINETWAWKNATLAEQAKLPATEKPVLLSKDIEAKMMALDR  
EVQYLLNKAFTKPRPRPKDKNGTRAEPPLNASASDQGEKVIPPAGQTEDAEP ISEPEKVETGSEPGDTEPELEL  
GPGAEPEQKEQSIGQKRPLKNDEL

## FIGURE 45

ATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCTGAGATGGAAGCCGGCTTCCCAGCCAC  
CATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT  
GATATGGAGGAAGAAGAGCTCAGGTGGAAGGAGGGAGCTACTCTAAGGCTGAGTGGACGACAGTGCCAGGG  
GTCTGAGTCTCACAGCTTGTAAGCCTGAGACAGCTGCCTTGTTGCGACTGAGATGCACAGCTGCCTTGTTGTC  
GACTGAGATGCAGGATTTCCCTACGCCTCCCCATGTGTCTTAGGGGACTCTGGCTTCTCTTTTTGCAAGGGCCT  
CTGAATCTGTCTGTGCCCTGTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC  
CCCTTCTCACACTGACCTGTGTTCCCTTCCCTGTTCTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC  
AGCTCATGCCTGTAATCCAGCACTTAGGGAGGCCGAGGAGGCAGATCACGAGGTGAGGAGATCGAAACCATCC  
TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATAGCTGGGGCGCAGAGGCACGGGCCTGTAG  
TCCCAGCTACTCAGGAGGCGGAGGCAGGAGAAATGGCGTCAACCCGGGAGGCAGAGTTGCAGTGAGCCAGGATTG  
TGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAAATAAAAAATAAAAAAGAA  
CCTGGATCTCAATTTAATTTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA  
CAGATAATTCACAGCACATCTCTAGCAAATTTAGCCTATTCTATTCTTAGCCTATTCTTACCACCTGTAAT  
CTTGACCATATACCTTGGAGTTGAATATTGTTTTCTACTGCTGTGGTTTGAATGTTCCCTCCACACATCATGTT  
GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT  
CATTCATGGGTTAATGGATTAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAGAGAAC  
TGAGCTAGCATGCCAACCCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGGAATGTGAGGTGCAGCTGCCAC  
AGAGGGCCCCCACCAGGGAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG  
GGAGCAGGACCTGACCACCACCAGGACCCAGAACTGTGGAGTCAGTGGCAGCATGCAGCGCCCTTGGGAAAG  
CTTTAGGCACCAGCTGCAACCCATTGAGCAGCCACGTAGGCTCGACCAGCAAAGCCACAGGCACGGGGCTAC  
CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGCTCCGTGAGGCAGCACAGCAAGTCAAAGAGATTATCTCTT  
CCACAGATACCTTTCTCTCCATGACCTTTAACAGCATCTGCTTCATCCCTCACCTTCCAGGCTGATCT  
GAGGTAACCTTTGAAGTAAAAATAAAGCTGTGTTTGAGCATC

## FIGURE 46

CCCTCTCGGAGCTGGAATGCAGCTATTGAGATCTTCAATGCTGCGGAGCTGGAGCGGAGGCGAGCTGGGGAGGT  
CCGAGCGATGTGACCAAGCCGCCATCGCTCGTCTCTTCTCTCTCTGCGCGCTCCTGTGTCGAAAATAACTTTT  
TTAGTCTAAAGAAAGAAAGACAAAAGTAGTCGTCGCCCTCAGCCCTCTCTTCTCTCAGCCTTCCGCCCGGT  
GAGGAAGCCCGGGTGGCTGCTCCGCCGTGCGGGCGCGCCGCCGAGCCCCAGCGCCCCGGGCCCGCCCCGACG  
CCGCCCCCATGCATCCCTTCTACACCCGGGCGCCACCATGATAGGCGAGATCGCCGCCCGGTGTCTTCTCATCT  
CCAAAGTTTCTCCGACCAAGGGGCTGACGAGCGAGCGACAGCTGCAGACCTTTCAGCCAGAGCCTGCAGGAGCTGC  
TGGCAGAACATTATAAACATCACTGGTTCCAGAAAAGCCATGCAAGGGATCGGGTTACCGTTGTATTTCGATCA  
ACCATAAAAATGGATCCTCTGATTGGACAGGCGAGCACAGCGGATTGGACTGAGCAGTCAGGAGCTGTTCAGGCTTC  
TCCCAAGTGAATCAGACTCTGGGTTGACCCCTATGAAGTGTCTACAGAATTGGAGAGGATGGCTCCATCTGTG  
TGCTGTATGAAGCCTCACCAGCAGGAGGTAGCACTCAAACAGCACCAACGTGCAAAATGGTAGACAGCCGAATCA  
GCTGTAAAGGAGAACTTCTCTGGGCGAAGACGACCCTTCCAAAACTACAATATGATGACTGTATCAGGTTAAG  
ATATAGTCTGTGGATGGATCATCTGATGATGATCCATAAAATTTGATTTTTGCTTTGGGTGGGCTCCTCTTGGGGA  
TGGATTATGGAATTTAAACCATGTCAAGCTGTGAAGATCTGGCACAAGATAGAATGGTAAAAAAAAAAAAAAT  
TTTAAGTGACAGTGCCATAGTTTGGACAGTACCTTTCAATGATTAAATTTAATAGCCTGTGAGTCCAAGTAAATG  
ATCACTTTATTTGCTAGGGAGGGAAGTCTAGGGTGGTTTCAGTTTCTCCAGACATACCTAAATTTTACATCA  
ATCCTTTTAAAGAAAATCTGTATTTCAAAGAATCTTTCTCTGCAGTAAATCTCGCAGGGGAATTTGCACATTTAC  
ACTTGAAGTTGTTATTGTTAACTTTTTCGGCAGCTTTTAAATAGGAAAGTTTAAACGTTTAAACATGGTAGTACT  
GGAATTTTACAAGACTTTTACCTAGCACTTAAATATGTATAAATGTACATAAAGACAAACTAGTAAGCATGACC  
TGGGGAATGGTGACACCTTGATTTGTGTTTTTGGCCTTGAAAGTAGCAAGTGACCAGAATCTGCCATGGCAACA  
GGCTTTAAAAAAGACCCTTAAAGACACTGTCTCAACTGTGGTGTAGCACCAGCCAGCTCTCTGTACATTTGC  
TAGCTTGTAGTTTTCTAAGACTGAGTAAACTTCTTATTTTGAAGGTGGAGGTCGTGGTTTGTAACTTTTCTTGT  
ACTTAATGGGTAAAAGCTTTTCCACAAACCACCATCTATTTTGTGAACCTTGTGTAGTCATCTTTTATTGGTA  
AATTATGAACCTGGTGAATTTGTACAGTTTCATGTATATTGATTGTGGCAAAGTTGTACAGATTTCTATATTTG  
GATGAGAAATTTTCTCTCTCTATAATAATCGTTTCTTATCTTGGCATTTTAAAC

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**FIGURE 47**

MHPFYTRAATMIGEIAAAVSFISKFLRTKGLTSE RQLQTFSSQLQELLA EHYKHHWFPEKPKGSGYRCIRINHK  
MDPLIGQAAQRIGLSSQELFRLLPSELTLWVDPYEVSYRIGEDGSICVLYEASPAGGSTQNSTNVQMVD SRISK  
EELLGRTSPSKNYNMMTVSG

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**FIGURE 48**

GGCACGAGGACCGCATTGCGGCTTGGTTTTCTACCCAGTGATGTGGCAGGAGCGGTGAGATCACTGCCT  
CACGGCGATCCTGGACTGACGGTCACGACTGCCTACCCTCTAACCCCTGTTCTGAGCTGCCCCCTTGCCACACACC  
CCAAACCTGTGTGACAGGATCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGCGATTCCG  
CGCCAGTTGCTGGCTCACATTGCGAGGCTGGTGTCCAGGGCTCAGCGCGGGGACGACTCAGAGTTGGGGTCT  
CACTGTGTTGCCAGACTGGCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCCAAGATGCCGAG  
ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA  
GCTTCCAAGAATGCTGAGGTTACAGGCACCAATGAGGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT  
GAGTTAGAGCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGCGGCCATGTCCCTGGCGGGAGCCGAGAAGAAT  
GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCGAGCCGCGGCTAAGTTCACGGGCTGTCCAAG  
GAGGAGCTGCTGAAGGTGGCAGGCAGCCCCGGCTGGGTACGACCCCGCTGGGCATGCTGCTGCTCTTCTGGCTC  
GGCTGGCTCGGCATGCTTGCTGTTGCCGTGGTCAATACTGTGCGAGCGCCGCTGTGTCGAGCTACCGGCAG  
AAGTGGTGGCACACGGGCGCCCTTACCGCATCGCGACCTTCAGGCTTCCAGGGCCACGGCGCGGGCAACTG  
GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCTTGTGCTGGGTCCAATTCACAAG  
AACCAGAAGGATGATGTGCTGCTCAGACTGACTTGCTGCGAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTGAC  
AGTCTCTGCAATCGGCTAAAAAAAAGAGCATCCGTGTCAATTCTGGACCTTACTCCCACTACCGGGGTGAGAAC  
TCGTGGTTCTCCACTCAGGTTGACACTGTGGCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC  
GTGGATGGGTTCAGGTTTCGGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC  
ACCAAGGGCTTCAGTGAAGACAGGCTCTTTGATTGCGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA  
CTCGAATCCAACAAAGACTTGCTGTGACTAGCTCATACCTGTCTGATTCTGGTTCTACTGGGGAGCATACAAAA  
TCCCTAGTCACACAGTATTTGAATGCCACTTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG  
ACTTCCCTTCTGCGGGCTCAACTTCTCCGACTCTACCAAGCTGATGCTCTTACCCTCGACGGGACCCCTGTTTC  
AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCTTGACAGCCTATGGAGGCTCCAGTCATGCTGTGG  
GATGAGTCCAGCTTCCCTGACATCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCCCT  
GGCTCCCTCCTTCTTGTGTTCCGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACATGTCATGGGGACTTC  
CACGCTTCTCCGCTGGGCTGGACTCTTCTCTATATCCGCCACTGGGACCAGAATGAGCGTTTCTGGTAGTG  
CTTAACCTTTGGGATGTGGGCTCTCGGCTGGACTGCAGGCCCTCCGACCTGCCTGCCAGCGCCAGCTGCCAGCC  
AAGGCTGACCTCCTGCTCAGCACCCAGCCAGGCGGTGAGGAGGGCTCCCTCTTGTAGCTGGAACGCTGAAACTG  
GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCTACGCGGCTGCACTTTCAGCCTGACATGGACCCACTACCTTC  
TCTTTCTTCCAGGCCCTTGGCTTCTGATTTTCTCTTTTTAAAAACAAACAAACAACTGTTGCAAAAAA  
AAAAAAAAAAAA

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**FIGURE 49**

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAENGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP  
GWVTRWALLLLFWLGLWGLAGAVVIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL  
SSLKVKGLVLGPIHKNQKDDVAQTDLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTPNYRGENSWFSTQVDIV  
ATKVKDALEFWLQAGVDCFQVRDIENLKDASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLESNKDLLLT  
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLRLYQLMLFTLPGTPVFSYGDEIGLDA  
AALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKQSEDPGSLLSLFRRLSDQRSKERSLLHGFHAFSAGPGLF  
SYIRHWQNERFLVVLNFGDVGLSAGLQASDLPASASLPKADLLSTQPGREEGSPELERLKLPEHEGLLLR  
FYAA



## FIGURE 50

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCGCGTTGCCGCCCCCTCGGCCCGCATGCTGC  
TATCCGTGCCGCTGCTGCTCGGCCCTCTCGGCCCTGGCCGTCGCCGAGCCCCGCGTCTACTTCAAGGAGCAGTTTC  
TGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTT  
CCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGACAGACAAGCCAGGATGCACGCTTTTATGCTCTGT  
CGGCCAGTTTCGAGCCTTTACAGAACAAAGGCCAGACGCTGGTGGTGCAGTTTACGGTGAACATGAGCAGAACA  
TCGACTGTGGGGCGGCTATGTGAAGCTGTTTCCCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAGAAT  
ACAAATCATGTTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTTCATGTCATCTTCAACTACAAGGGCA  
AGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGC  
CAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAAGCAGATTGGGACTTCC  
TGCCACCCAAAGAAGATAAAGGATCCTGATGCTTCAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATC  
CCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCGAGCATATCCCTGACCTTGATGCTAAGAAGCCCAGGACT  
GGGATGAAGAGATGGACGGAGAGTGGGAACCCCACTGATTACAGAACCTTGAGTACAAGGGTGAGTGGAAAGCCCC  
GGCAGATCGACAACCCAGATTACAAGGGCACTTGATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCGATC  
CCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTTG  
ACAACCTCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAGGCAG  
CAGAGAAACAATGAAGGACAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCAAAG  
AGGAGGAGGAGGACAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGG  
AAGATGAGGAGGAAGATGTCCCGGCCAGGCCAAGGACGAGCTGTAGAGAGGCGCTGCCTCCAGGGCTGGACTGAG  
GCCTGAGCGCTCTGCCCGCAGAGCTTGCCCGGCCAAATAATGTCTCTGTGAGACTCGAGAAGTTTCATTTTTTTC  
CAGGCTGGTTCGGATTGGGGTGGAATTTGGTTTTGTTCCCTCCTCCACTCTCCCCACCCCTCCCCGCCCTT  
TTTTTTTTTTTTTAAACTGGTATTTATCCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTCTT  
GATCAACATCTTTTCTGCTCTGTGCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTGT  
GGAGAAGCCACAGGCCTGAGATTTATCTGCTCTCCTTCTGAGGCCAGAGGAGGCGCAGAGAAGGGGGTGGT  
TCTCCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTCTCATTTTCAACCCCTCCCTTTCTCCCTGCCCCAGGA  
CTGGGCCACTTCTGGGTGGGGCAGTGGGTCCAGATTGGCTCACACTGAGAATGTAAGAACTACAACAAAATTT  
CTATTAATAAATTTTGTGCTC

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**FIGURE 51**

M L S V P L L G L L G L A V A E Y A V F K E Q F L D G D G W T S R W I E S K H K S D F G K F V L S S G K F Y G D E E K D K G L Q T S O Q A R F Y  
A L S A S E F P E F S N K G Q L V U F Q T V K H E I N C D G G W Y K L F P N S L D Q T M H D G S E Y N I M F G D I C G P G T K V H V I F N Y  
K G N V L I N K D I R X C D D E T H L Y I L T V R P D T E Y V K I D S E S G S L E D D W F L P P K I K D P A S K P E D W B E R A K I  
D D P T D S K P E D W D K P E H I P D P A K K P E D W D E E M D G E W E P P V I Q N P E Y K G E W K P R Q I N P E Y K G T W I H P E I D N P E Y S  
P D P I Y A Y D N F G V L G L D Q W K S R T I F D N F L I N D E A Y E F F E G N T W G T V K A A E K Q M K D Q D E E Q R L K E E E E D K  
R K E E A A E D K E D D E D K D E D E E D E K T W E D V G Q A K D L

## FIGURE 52A

AGAGCGAGCAGGGGAGAGCGAGACCGAGTTTAAAGGGAGGACCGGTGCGAGTGAGGACGCCCCGAGGCTCTGCTC  
GCCCAACCCCAATCCTCGCTCCCTTCTGCTCCACCTTCTCTCTCTGCGCTCACCCTCTCCCCGAAAACCCCTT  
CTTTAGCCAGGAAGGAGGAGTTCAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAACAGAAAAACCCCTTTT  
ACGGCCGGGAGAGTCTGTGAGGAACGAGGGGCCCGCGGGTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCGG  
TCCGACGGGCGGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCGAAGCTGCTCACCATCGAGGAGC  
GCTACCTTCGCGAGCTGCTCTACTTCAAGTCGCTGCAGAGGACATCCAACCTTACATCGCGAGAAGTGGTGCCA  
CCTGGATGCTGAGGTCTGTGAGGACGAGAAGTGGGAAGAGGTCTTCCCTTGGCCATGAATTACTCTGGACC  
GTTTCTTGCTGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTCTGGCTCCA  
AACTCAAAGACGACCGCCGCTGACCGGGAGAAAGCTGTGCATTTACACCGCAACATCCATCAAGCCTCAGGAGC  
TGCTGAGTGGGAAGCTGGTGGTCTGGGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCAATT  
AGCACATCTTGGCGAAGCTGCCCAAGCAGCGGGAGAAGCTGTCTGTATCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACGACAGCTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATCAGCCTGCACGAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGAGGATGAAGTGGACCAACGACGACCCCTACAGCAGCTGCGGG  
ATATCGACCTGTCGAGGATGCGAGTGGGGCCGAAGAGAGAGAGCGCGCTCAATAACTTGGTCTCTTCTCTTCTGG  
TTGTTTTGTTCTTGTGTTTTAGGGTGAACCTTAAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTTGAAGTGAGCAAAAAGTCTCAGAAAACGGAATAATAAAAGCATTTTGGTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTGTATATGCGAACAGTTATTGTTTGAATTATGTAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTCTATGTT  
ATGAGCTAGCACATACACCCCTTTGTAGTATAATTTCAAGGAAGCTGTGACGCCATTTATGGCATAGTTAGATTG  
CAAAGCAATGAACCTCAAGAAGGAATGAATAAGGAGGACATGATGGGGAAGGAGTACAAAACAACTCTCTCAAC  
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGATGTTGGAT  
CTCTACATTAATGTCCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTGGCCAGTTGGACA  
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAATGTAGCTATGGGCCATAACCAAACTCACATGAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCGAATGGAGCTTTTTCTGTTATTGTATTTAAAGGGTAATGGGCCCTGGCATTTCCTTC  
TTAGAAAAAACTAATTTTGGTGTCTGATTGGCATGTCTGGTTCACAGTTTAGCATGTTTATAAAACATTCCTAT  
CGAAAAGCACTTTGAAAAATGTTCCCGACGATAGATGGGATGTTTATCGAAGTCATGCTGAATACTCTCCCT  
CTCTCTCTTTTGGCCCCCTCCTTCTGCCCCAGTCTGGGTACTCTTCTGCTTCTGGTATCTGGCGTTCTTTGG  
TACACAGTTCTGGTGTCTCTACGAGTCTCAAGAGACACCCCTTCTGCTGACATTCCTCATCAACATCTCTCA  
GACAAGCCTGTAAACTAAATCTGTTACCATCTGTAGGCAAGAGGATCTTAATCCCATCTCTATCTCTCTC  
CTTTGGACATGGAAGAAAAGTATTGCTGGTGCAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTGTTCC  
CTTTCCGTTTTTTTTTTTTTATGTTGTTGTTAAATTTTATGCAAGGTGTTATCAGCGTACTTGAATTTTTTC  
TGCTCTCCACTCTTAGAGGCTTCAGTTAGCAAAAGAGGTGGAGCAACAACTTTTTTTTTTTTTTTTGCACAA  
TTGTAATTGACAGGTAATGAAGCTATTGTTTAAATATTGCTTTTTTAAGTAAAAAGAAAAATCAGAACAGGG  
CTATTTGAAGAAATATTTTATACAGATTCTGCCTTGTTTTCATAGTATGAGGGTGAAGACGGAACAACTCTA  
AGGGTCTCTCATTTTTTTTTAAATTTTTTTTTTGTGTCAGTTGGTTTTTTTTTTTTTCTTTTTTTGGTTTTTGG  
TTTTTTTTTTTCTCTGTGATCAGATCTTCAAAGACGGAGATTCTTTACCTCAGGTTTACTGCGCAAAATCAAT  
AACTACAAAAGGCAATGATTCACGCTTTTTGTTTTTCATAATACCTCAACAGCTACGTTCTGCTTGGGAGCCCA  
TTCGATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCAGGTGGAAGGCGAGGGCGGTCTCACTCC  
CAGGGACCTTTTTTGGTCAAGGAGGACCTCGGGCTCCAGTTAGACCTGGTATCTCATCATGATGGAAGAAAAAT  
CATTGAACCAAGGACTCTCCCTCCCTTCAAGGCAGACGTTTCAGTACAAACATTTTATCGGTAGGCTCAGATGT  
CGTAATTTGCACTTAGGTACCAGGTGTGAGGAAACAGACTAAAAAGAAATTCACACAGGCTGTTTGGAGATCTCA  
TCTTGAGCTTTTTTCAAAGCGGGGCTTCATCTGCAAGGGCCCTTCATCTGAAGTTTTTCCCTCCGCTCTTT

## FIGURE 52B

CCCCCCCCCGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTTAGGCTGAATCTGCGAGTAGAT  
GAACCTGCGAGCAAGCAGCGTTTATGGTGCCTTCTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC  
AAGCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
AGGTCAGATAAGTATGGATGATAGTTGAAGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAATTTCCAGATG  
AGTCAGTCTCTTGGGAAGTGTGTTTGAAGGGTTCAGGACCTTGTGAGTTAGCATGACCTAAAAATTTAGGGGA  
TTTCTGGTGGGCAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCTGGGCCCAAGGAGTCCCACGGAATGGGGAAGTG  
GGAAACCTTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTTCAATGGTGACTGACC  
CTTGAGCTTAAACAGAACGACGCAAAATGAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT  
ACAGTGTGTAACCTTTCCACTTCTTCCGTAGTCCCGAGGCCCTGGGTCTCTTAGCTTTTCTCTTTCCCATCCTT  
GGGGCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAGTCGGGGGTGTGTAGGCTTTTCTGCCTGCTCTCT  
GCTTAAACACAAGAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCGA  
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTGTGTTGTTCTTTCTCTCTTTTCTTACCTCCC  
ACTAAAGGGGTTCCAAATATCTCTGGTCTTTTTCTACCTTGTGTGTCTTCTATCTCGTCTTTACTTCCATCTGTT  
TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCAGCCTGCCAAATTTTGAATCTTCCCCCTCTTTTGGCC  
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAACCTCCATGCGGGTCCATAA  
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAAGACACCCCATCGGTGCTGAGAGGCGAGC  
TCCTTGAAGAAGGGCTGTCTTCTCAGGAGGCCCTTATTTGAATGCTCAGGACCCCATGGAGAGCACAGCAT  
GCCTTACTACTGGGTACCTCTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA  
GGGGCACACATGGCTTAAGTGACAAAGCCAGGAGAGAAGCAACCTGACAGCATCAGCTGCATCCCAATTGCTA  
CGAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCACTGTAGCAGCTCTAGGGCCTCTCCAGACTGTGC  
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT  
TTTTCTCCTCATGGGCCACGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCAATGTAATAATGA  
TTTTCTAGTTCAAGAAGATAATATGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGATGAAGCCAG  
TTGGCTCTCAAGCCAAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACTTGAGAAATAGCTTTAAAGGG  
AAATTAATGCTGAGATGATAAAGTCCCCITAAGCCAACAAACCTCTGTAGCTATAGAATGAGTCGAGGTTTCTA  
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTCATGCAGCCATCCATTGTGCAAAATAGGGTAAGAAGATT  
CAAGAGGATATTTATTACTTCCATACACCATAGGCTTTTGATGATTCGAGATTCTAAACAACCCAGAATGGTCA  
TTTCAGGCACAACGATACATACATTCGTGTGTGCTGCTTTTAAACTTGGCTGGGCTATCAGACCCCTATTCTCGGC  
TCAGGTTTTGAGAAGCCATCAGCAAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCGTGCAGCC  
TACTTTGGGGAATAAAGTGCCCTTACTGACTGTAGCCATTACAGTATCCAATGCTCTTTGACAGGTGCTGTCTC  
TGAAAAACAAGTTTCTATTTTTATTTTTAAATTTGGTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCGACA  
AATCATCGGGCCATTGGATTTTTTCCATTATGTTTCATCACCCTTATATCATGTATGCCATCAGATCTCTCTCTCTC  
CTCTCTCTCAGTTATATAGTTTCTGTCTTGGACTTTTTTTTTCTTTCTTTTCTTTTTTTTTTGTCTTAAAAA  
CAAGTGTGATGCCATATCAAGTCCATGTATTCTCTCACAGTGTACTATAAGAGGTGTGGGTGTCTGTTTGGT  
CAGGATGTTAGAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG  
TTGATTGGCTATGATGGTGACATGATATAGTCAGCTGCCCTTTAAGAGGCTTATCTGTTCAAGTGTAAAGTGTAT  
TAAAAAATAATAACCTGTTTTCTGACTAGTTTTAAAGATGGATTGAAAATGGTTTTGAATGCAATTAGGTTAT  
GCTATTGGACAATAAATCTACCTTGACCT

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**FIGURE 53**

MELLCHEVDPVRRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTNSIKPQELLEWELVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLRKHAQTFIALCATDFKFAMYPPSMIATGSGVAAICGLQQDEEVSSLTC  
DALTELLAKITNTDVKLACQEQIEAVLLNSLQYRQDQRDGSKEDELDQASTPTDVRDIDL

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTAAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC  
GCCACCACCCCAATCCTCGCTCCCTTCTGCTCCACCTTCTCTCTGCGCCCTACCTCTCCCCGAAAAACCCCTT  
ATTAGCCAAAGGAAGGAGGTGACGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTTT  
CCAGGCCGGGGAACGAGGAGGAGAGGGGCCCGCGGCTGGCCATGGAGTGTGTGTCACAGAGGTGGACCCGG  
TCCGCAAGGCGCTGCGGGACCGCAACCTGCTCCGAGACGACCGCGCTCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCGCGAGTGCTCTACTTCAAGTGCCTGCAGAGGACATCCAACTCCATATCGCGAGAATGGTGCCCA  
CCTGAGATGCTGAGGTGCTGTGAGGAACAGAGTGCAGAGAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGCTGGGTGCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCTCCCA  
AATCAAAGAGACGACCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGCTGAGTGGGAACCTGGTGGTCTGGGGAAGTTGAAGTGGAACTCGGACGCTGCTACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGGCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTGCCTCACTTGTGATGCCCTGACTGACCTCTGGCTAAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCTCCGACGAT  
ACCGTCAGGACCAAGCTGACGGATCCAAGTCCGAGGATGAACCTGGACCAAGCGACCCCTCAGACGTCGCGG  
ATATCGACCTGTCAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTCTGG  
TTGTTTTTGTCTTGTGTTTTAGGGTGAACCTTAAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTAGAGTGAGAGAAAAAGGCTCTACGAAAACGGAATAATAAAAGCATTTGGTGCCATTTTGAAGTACAGC  
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATAGAGGAGACTTTTTTTTTTCATGTT  
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAACCTGTACGCCATTTATGGCATGATTAGATTG  
CAAAGCAATGAACCTCAAGAGGAATGAATAAGGAGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC  
ATGATTGAACCAATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTACTAAGTCAGGAGTGTAGTTGGAT  
CTCTACATTAATGTCTCTTGTGCTCTACAGTAGCTGTACTCTAAAAAAGATGTTTTATTTGGCATTTGGACA  
CAGGTGATTGGCTCTCGGTTTCATGTTCTGTGACATCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAATGTAGCTATGGGCCATAACCAAACTCACATGAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCGAATGGAGCTTTTCTGTTATGTATTTAAAGGGTAATGTGGCCTTGGCATTTCTTC  
TTAGAAAAAACTAATTTTGTGCTGATTGGCATGTCTGGTTACAGTTTAGCATTTGTATAAACCATTCCATT  
CGAAAAGCAATTTGAAAATTTGTTCCGAGCGATAGATGGGATGGTTATGCAAGTCATGCTGAATACTCTCCC  
CTCTTCTTTTGGCCCCCTCCCTTCTCGCCCCAGCTCTGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG  
TACACAGTTCTGGTGTCTCTACCGAGACTCAAGAGACACCCCTTCTGCTGACATCCCCATCACAACATTCCTCA  
GACAAGCCTGTAACTAAATCTGTTACCATTCTGATGGCAGAGAAGATCTAATTCACATCTCTACTTCTC  
CTTTGGACATGGAAGAAAAGTTATTGCTGGTGCAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTGTTCC  
CTTTCCGTTTTTTTTTTTATTTGTTGTTGTTAAITTTATGCAAGTTGTATTCAGCGTACTTGAATTTTTT  
TCCCTCTCACTTCTAGAGGCATTCAGTTAGCAAGAGGTGGAGCAACATTTTTTTTGTGACAAA  
TTGTAATTGACAGGTAATGAAGCTATTGTTAAAATATTGCTTTTAAAGTAAAAAGAAAAATCAGAACAGGG  
CTATTGAAGAATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGTTGAAGACGGAACAACTCTA  
AGGGCTCTCATTTTTTAAATTTGTTTTGTTGTCAGTTTGGTTTTTTTTTTTGGCGTGTCTAAGAGAGCTAAG  
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTATATAACATT  
TTATAATATTTATTACTGCTTAATTCGAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA  
AAGCCCTTCCGATTTGTTTTCTCTGTTGATACATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTGG  
TTTTTTTTTTTCTCTGATCACAATCTTCAAAGACGGAGTATCTTTACCTCAGGTTTACTGGACAAAAATCAAT  
AACTACAAAAGCAATGATTCACGTTTTGTTTTTTCATATCTCACAAACGTCACAGTTTCTGCTTGGGAGCCCA  
TTCGATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC  
CAGGGACCTTTTTGTCATGAGGCGCATCGGGCTCCAGTTAGACCTGGTATCTCATCATGATGGGAAAGAAAA  
CAITGAACCAAGGATCTCTCCCTCCCTTCAAGGCAGCGTTTCAGTACAAACATTTATGCGGTAGGCTCAGATG  
CGTAATTTGCACTTAGGTACCAGGTGTGAGGAAACAGACTAAAAAGAAATCCACCAGGCTGTTGGAGATCTCA  
TCTTGAGCTTTTTCAAAGCGGGGCTTCATCTGAAAGGCCCTTTCATCTGAAGTTTTTCCCTCCGCTTTT

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FIGURE 54B

CCCCCCCCCGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTTAGTCTGAACTGCGAGTAGAT  
GAACCTGCGAGCAAGCAGCGTTTATGGTGTCTCCCTTCTCCCTCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC  
AAGCCCAAGCCCTCTGTCTAGCGGTAATAACCGTCGGGTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
AGGTCAGATAAGATATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTTACAGAGGTGAAATTCAGATG  
AGTCAGTCTCTTGGGAAGTGTGTTAGAAGGTTTCAGGACTTTGTGAGTTAGCATGACCTAAAATTTCTAGGGGA  
TTTTCTGGTGGGACAAATGGGTGGTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
AGAGTTTCTCAAGAGCCAGCTTTGTCTCAGCACACTCTCTGGGCCCAAGGAGTCCACCGAATGGCGGAAGATG  
GGAACCTTGGAGTTCTTGGGAATCTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTTCATGGTGACTGACC  
CTTGAGCTTAAACAGAAGCAGCAAAATGAAAGAACCGGACAAAATGAAGAGGGCACAAGCCTACCCGACTCTATTT  
ACAGTCTGTAACCTTCCACTCTTCCGTGTAGTCCCGAGGCCCTGGGTCTCTTAGCTTTTCTCTTTCCCATCCTT  
GGGGCCTTGTGTGATGATGGGTGTGGGCTGCCGATGGGAAAGTCGGGGTGTGTAGGCTTTTCTGCTGCTCTCT  
GCTTAAACACAAGAAGGAATCTCGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTCGA  
GAGGAGCTCTCCCCCTTGGATTTGAACCTTGCTCTTTTGTGTGTGTGTTCTTTCTCTCTTTTCTTACCTCCC  
ACTAAAGGGGTTCACAAATTAICTGTGCTTTTTCTACCTTGTGTGTGTTCTATCTGCTCTTTACTTCCATCTGTT  
TGTTTTTTTCTCCATCAGTGGGGCCGAGTTGTTCCCCAGCCTGCCAAATTTGATCCCTTCCCTCTTTTGGCC  
AAATCCTAGGGGGAAGAAATCCTTAGTATGCCAAAATATATGCTAAGCATAAATAACTCCATGCGGGTCCATAA  
CAGCCAAGAAGCTCGCAGAGAAGCCAAGGGCAGTTCCCTCCGCAAGACACCCCATGCGTGCTGAGAGGCGAGC  
TCCTTGAAGAAGGGCTGTCTTCCAGAGGCCCTTATTTGAACCTGCTCAGGACCCCACTGGAGAGCAGCAT  
GCCTTACTACTGGGTCTCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCTCTTATCAGCCAGGTCA  
GGGGCACACATGGCTTAAGTGACAAAGCCAGGAGAGAAGACAACCTGACAGCATCAGCTGCATCCCATTTGCTA  
GCAGGATTTGGCAACTCTTCAGACGGAGCTGCCTTCCCTGCACTGACAGTCTTAGGGCCTCTCCAGACTGTGC  
CCTGGGAGCTCTGGGACTGAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCAAGAGGGCAGGGGAAT  
TTTTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAATAATTGA  
TTTTCTAGTTCAAGAAGATAATATGGTAGTGGGAATTGGAGGTAGGAAGGGGAGGAAGCTGAGTAAGCCAG  
TTGGCTTCTAAGCCAAAAGGATTCCTCTTGTGTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGG  
AAATTAATGCTGAGATGATAAAGTCCCCCTTAAGCCAACAAACCTCTGTAGCTATAGAAATGAGTGCAGGTTCTA  
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTCATGCAGCCATCCATTGTGCAAAAATAGGGTAAGAAGATT  
CAAGAGGATATTTATTACTTCCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA  
TTTCAGGCACAACGATACATTCGTGTGTGCTGCTTTTAACTTGGCTGGGCTATCAGACCTTATTCTCGGC  
TCAGGTTTTGAGAAGCCATCAGCAAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCC  
TACTTTTGGGGAATTAAGTGCCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCTGTCTCT  
TGAAAAACAAGATTCTATTTTATTTTAAATGGTTAGTTCTTAACTGTGTGGCCAACTCTTACATCCCCAGCA  
AATCATCGGGCCATTGGATTTTTTCCATTATGTTCAICACCCCTTATATCATGTACCTCAGATCTCTCTCTCTC  
CTCTCTCAGTTATATAGTTCTTGTCTTGGACTTTTTTTTTCTTTCTTTTCTTTTTTTTTTTTGGCTTTAAAA  
CAAGTGTGATGCCATATCAGTCGATGTTATTTCTCAGAGTACTCTATAAGAGGTGTGGGTGCTGTTTGGT  
CAGGATGTTAGAAGTGCTGATAAGTAGCATGATCAGTGTATGCCAAAAGTTTTTAGGAAGTATGGCAAAAATG  
TTGATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGTCTTATCTGTTCAAGTGTAAAGTAT  
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTGAAAATGGTTTTGACCAATTAGGTTAT  
GCTATTTGGACAATAAATCACCTTGACCT

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**FIGURE 55**

MELLCHEVDFVRRVVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKWKWN  
LAAVTPHDFIEHILRKLPQOREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDVKACQEQIEAVLLNSLQYRQDQDQDGSKEDELQASTPTDVRDIDL



## FIGURE 56A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTAAAGGGGAGGACCGGTGCGAGTAAGGCAGCCCCAGGCTCTGCTC  
GCCCAACCCCAATCCTCGCTCCCTTCTGCTCCACCTTCTCTCTCTGCGCTCACCCTCTCCCCGAAAAACCCCT  
ATTATGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCTCCCTTCCAAAAAACAACAGAAAAACCCCTTTT  
CCAGGCCGGGAAACGACGAGGAGAGGGGCGCCGGGCTGGCCATGGAGTCTGCTCTGGCCATGAATTACCTGAGCC  
TCCGCAAGGCGCTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCGAGAACCTGCTCACCATCGAGGAGC  
GTACCTCTCCGAGCTGCTCTACTTCAAGTGCCTGCAGAGGACATCCAACCTACATCGCGAGAAGTGGTGGCCA  
CCTGGAGTCTGGAGGTCTGTGTGAACAAGAAGTGCAGAAGAGGTCTCTCCCTTGGCCATGAATTACCTGAGCC  
GTTTCTTGGCTGGGCTCCGACTCCGAAGTCCCATCTGCAACTCTGGGTGCTGTCTGCATGTCTCTGGCTCCA  
AACTCAAAAGACAGCCCCCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGTGGAGTGGGAACCTGGTGTCTGGGAAGTTGAAGTGGAACTGGCGAGCTGTCTCCTCATGACTTCAATT  
AGCACATCTTGGCGAAGCTGCCCCAGCAGCGGAGAAGCTGTCTGTATCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGGCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACGACAGCTGGATTGTCTCAAAGCTTGCAGGAGCAGATTGAGGCGGTGCTCTCTCAATAGCTCGACAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACCTGGACAGCCAGCAGCCCCACAGACGTGCGGG  
ATATGACCTCTGAGGATGCCATTTGGGCGAAAGAGAGAGACGCGCTCAATCTTGGCTCTCTCTCTCTTCTGG  
TTGTTTTTGTCTTGTGTTTTAGGGTGAACCTTAAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT  
TTTTAGAAGTGAGAGAAAAGGCTCTACGAAAACGGAATAATAAAAGCATTTGGTGCCATTTGAAGTACAGC  
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAATATAGAGGAGACTTTTTTTTCATGTTA  
TGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAACCTGTGTACGCCATTTATGGCATGATTAGATTGC  
AAAGCAATGAACCAAGAAGGAATTGAAA TAAGGAGGACATGATGGGAAGGAGTACAAAACAATCTCTCAACA  
TGTGTGAACCAATTTGGGATGGAGAAGCACCCTTGTCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGATC  
TCTACATTAATGTCTCTTGTCTGTCTCAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGGCATTTGGACAC  
AGGTGATTGGCTCTTGGGTTTCATGTTCTGTGACATCTGCTCTCTCTTCCAAATGCAAGTTCATTGACAGACCA  
CCATATTGCTATCTAATGGGGAATGTAGCTATGGGCCATAACCAAACTCACATGAACCGGAGGCAGATGGAGA  
CCAAGGGTGGGATCCAGAATGGAGTCTTTCTGTATTGTAATTTAAAGGGTAATGTGGCCCTTGCAATTTCTCT  
TAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGCTGGTTCACAGTTTAGCATGTTATATAAACCAATTCATT  
GAAAAGCACTTTGAAAAATTTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCAGCTGAATCTCACTCCCT  
TCTCTCTTTTGGCCCCCTCCCTTCTGCCCCAGTCTGGGTACTCTTCTGCTCTGCTGATCTGGCGTCTTTTGGT  
ACACAGTCTGTGTCTCTACGAGCTCAAGAGACACCCCTTCTCTGCTGACATTCCTCATCAACATCTCTCAG  
ACAAGCCTGTAAATCTGTTTACATCTGATGGCAAGAAGGATCTTAATTCCTCATCTATACCTCTCTCT  
TTGGACATGGAAGAAAAGTTATTGCTGGTGCAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTCTCCCT  
TTTCCGTTTTTTTTTTTTTATTGTTGTTGTAATTTTATGCAAGTGTGATTACAGCGTACTTGAATTTTTCTT  
CCTCTCCACTCTTAGAGGCATTGAGTTAGCAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTTTGGCAAT  
TGTAATTGACAGGTAATGAAGCTATTGTTAAAAATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGGC  
TATTTGAAGAATTTATTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAACCAATCTAA  
GGGTCTCTCATTTTTTTTTTATTGTTTTGTTGTTGTTGTTTTTTTTTTTTTGGCTGCTAAGAAGCTAAAGT  
CATCCATCCTTATTACAGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTTT  
TATAATATATATTTTACTGCTTAAATCCAAAGTCTTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGAA  
AAGCCCTCCCGTAGTTGTTTTTCTCTCTGTAGCATATTCATGGTTGTTTTTTTTTTTTTTTTTGGTTTTTGGT  
TTTTTTTTTTTCCCTCTGATCACATCTCTCAAAGACGGAGTATCTTACCTCAGGTTTACTGGACAAAATCAATA  
CTACAAAAGGCAATGATTCCGCTTTTGTTTTCATAATACCTACAACCGTACAGTTCTGTCTGGAGGCCATT  
CGCATGAGGAATACAGAAGCAGTTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGACGGGCGGTCTCACTCCA  
GGGACCTTTTGGTCTGAGGCGCTCGGGCTCCAGTTAGACCCCTGTAATCCCTCATATGATGGAAAAAATACA  
TTGAACCAAGGATCTCCCTCCCTCTCAAGCGACAGCTTCAGTACAAACATTTATGCGGTAGGCTCAGATTGCG  
TAATTTGCACTTAGGTACCAAGGTGTGAGGAAACAGACTAAAAAGAAATCCACCAGGCTGTTTGGAGATCTCATC  
TGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAGGGGCCCTTCATCTTGAAGTTTTTCCCTCCGCTCTTCC

## FIGURE 56B

CCTCCCCGTCAGTGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTTAGTCTGAATCTGCGAGTAGATGA  
ACCTTGACGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCTCTGTCTCAAAGTGGCGAGGCAAGCACTATGCAA  
GCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCCGGGTTTCAATCACACTGAATTGGCAGGATAAGAAAAATAG  
GTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAATTCAGATGAG  
TCAGTCTCTTGGGAAGTGTGTTTGAAGGGTTTCAGGACTTTGTGAGTTAGCATGACCCATAAAATTCATAGGGGATT  
TCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTGTGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCCAG  
AGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCTGGGCCCAAGGAGTCCCACGGAATGGGGAAAGTGGG  
AACCCTGGAGTCTCTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTTCATGGTGACTGACCCT  
TGAGCTTAAACAGAAGCAGCAAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTTAC  
AGTCTGTAACCTTCCACTCTTCCTGTAGTCCCGAGGCCCTGGGTCTCTTAGCTTTTCTCTTCCCATCCTTGG  
GGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTGTGTAGGCTTTTCTGCCTGCTCCTGC  
TTAAACACAAGAAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTGTGGTAGGAGTTTTGTTCAGA  
GGAGCTCTCCCCCTTGGATTGAAGTGTCTCTTTTGTGTGTGTGTCTTCTCTCTTTTCTTACCTCCAC  
TAAAGGGGTTCCAAATATCTCTGGTCTTTTCTACCTTGTGTGTCTTATCTGCTCTTACTTCCATCTGTTTG  
TTTTTTCTCCATCAGTGGGGCCGAGTTGTTCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGCCCAA  
ATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAGTCCATGCGGGTCCATAACA  
GCCAAGAAGCCTGCAGGAGAAAGCAGGGCAGTTCCCTCCGAGAACCCCAATGCGTGCTGAGAGGCCAGCTC  
CTTGAAGAAGGGGCTGTTCTTCCAGGAGCCTTATTTGAAGTGCCTCAGGACCCACTGGAGAGCACAGCATGC  
CTTACTACTGGGTCTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCAGG  
GGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCTGACAGCATCAGCTGCATCCCATTTGCTAGC  
AGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCAGCTCTAGGGCCTCTCCAGACTGTGCC  
TGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCAAGAGGGCAGGGGAATTT  
TCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACACCTTATGTCTGTAATAATTTGATT  
TTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAGTT  
GGCTCTAAGCCAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGGAA  
ATTAATGCTGAGATGATAAGTCCCCTTAAGCCAACAACCCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTATT  
GGTGTGGACTCAGAGCAATTTACAAGAGCTGTTCTGACGCCATCCATTTTGCAAAATAGGGTAAGAAGATTCA  
AGAGGATATTTATTACTTCCATACCCATAGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAAATGGTCATT  
TCAGGCACAACGATACTACATTCGTGTGTGTCTGCTTTTAACTTGGCTGGGCTATCAGACCCCTATTCTCGGCTC  
AGGTTTTGAGAAGCCATCAGCAAAATGTGTACGTGCATGCTGTAGCTGCAGCTGCATCCCTTCGCGTGCAGCCTA  
CTTTGGGGAATAAAGTGCCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCTGCTGCTTG  
AAAAACAAGGTTTCTATTTTATTTTAAATTTGGTTAGTCTTAACTGCTGGCAACTCTTACACCCGACAA  
TCATCGGGCCATTTGATTTTTTCCATTATGTTTCATCAGCCCTTATATCATGTACCTCAGATCTCTCTCTCTCTCT  
CTCTCTCAGTTATATAGTTTCTTGTCTGGACTTTTTTTCTTTTCTTTTCTTTTTTTTGTCTTAAACA  
AGTGTAGTGCCATGTCAGTGCAATGTTATCTCTCACAGTGACTCTATAAGAGGAGTGGGTGTCTGTTTGGTCA  
GGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATGTT  
GTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCCTTTAAGAGGTCCTTATCTGTTCAGTGTAAAGTGATT  
AAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTGAAATGGTTTTGAATGCAATTAGGTTATGC  
TATTTGGACAATAAACTCACCTTGACCT

**FIGURE 57**

MELLCHEVDFVRRAVDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWEIVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDVKLACQEQIEAVLLNSLQQYRQDQRDGSSEDELDAQSTPTDVRDIDL

## FIGURE 58A

[illegible]

## FIGURE 5B

ATGTTTAGCAATGGCTCTGACAGGGTGGCCATGAGCAGATGAGACCAGCTCTTGCTTGGTGGGAAGCCACTG  
CAGTTTGCAGTTTAGCCCTTTGGTGTCTCAGTGGCCTCTTGCTTATTCATGCTTTTTCTATCCCATCCTCTCTCT  
GTGCCCTCCTGCAATGGCAGCCTTGGCACAATGCTGGGTGTCCTCATCCTTGCTTACTCTGGAAAGTGTGGGG  
ATGGAGAGGATGGTGCAATTCCAGTGCTTCCCTTACCTGTCAATAACAATGGGGCCACCTGGGTCCCGACTTG  
GCTGGTGGAGAGATTTTTTCATTATGGAGCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCAC  
CCAGACATGTGCAGATGAAATGTCATATAAGAAAAATCAAGGTATTGGGAAACATGGGCATAATCAGGTAGTT  
TTGCTAAAATTCTCTTCCCTGGTCTACATAAAGAAAGACATGGGTCTGTCAATAATGGGGACATTAGCTGAAA  
ACTGGGACAACCCCTTCTTATTTTATAGAGACTAGGAGTTAAGGGGCTGCCTAAGATTGCAGTGATAAAGAA  
CTGAACCTTAATCAGCTCCCACTAATGAAACCTGCTTTCCTTGATCTTTTAAACTCAGTTCTGCAATCCAAC  
TGAGAAAGAAAAAGCTTCTTCCCATCAAGTACCATATGAGTTCATTAAACTGCACCTTGCAGAAATGCATT  
GCCAGAAAGCACCAGTAGCCTCCTATCTGCAAGCAGAGTAGTGCTGCTGCTCTGGGAGGGGTCAATTGAAACCAT  
AATGCAGAGTGGGCCCTTACTCCATTTCCCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGG  
TTCTGCTAACTGCCAGATTGAATGTGTGGGTAGAAATGCTGCGCAATTTAGTTAAACTGGGCTCAGCATGCTTG  
TCCTCAAAATGTCCATCTCTGGTACAGCACACAAGATGGCTATTGGTCTGCTTTTACCCTACCTGTACTATACA  
TGAAAAATCCAGTTATTAAACACTCAAACCTGGTGGAGCTTGTCCACCTAAGGAAGGGGATTGTATATATGGCAG  
GCTTCCCTGGTGGCCGATGTAAGGGGTACATTTGGGAACATTTGACTTCTTGGGACTCTTAAGTGCATACTGAT  
GGCATGAAGTAAAGGGGCTCAATGATGATAGGAAAATCAGTTCTTTTAAATTTCTTCAAGAAAAATCCAGGCT  
ATCACATAGTCTTCTCTGTGGACTTATTAGGAGATAGGAAGCATTGGGAAACTTGCAAGCTAGCTATGCACT  
TACATTTTGGTTTGGGGTGTGTTATGAAATGTTCTTAATATGACGTGTTCAATAAACCCTCACATAAACTTCTGT  
CTCCAAACCTCAAAGAGATAGAGTTAATGAGTTGTTGTTTTTTTTTAAATGGGGTAGTTTTCTATCTGTCATG  
GGCTCTAGCATCTACTCCGTACCCCAATTCGTCTATCTCCAAGCTGAGTTTCTCTTCTGAGGCAGAGGCTGGAG  
CAGTTCTTTTTCAGTTCTCATCCTCTCCATCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGCTTAGCT  
GGCAATGTTTCTAAACCTTCTACTGGATTCTTTAGACATTGAAGCAACATTTTTTCTAAGAATTGCTTCTCA  
GATGATGATATCAAAATGATATGCTTTTGCAAGTTTGAAAGTTCAAATTAACCACCTTTTGACTAGGTAAGTCTT  
TCTAAAACCATTTTAAAGCTAATCTGGGTCTTAGCATCTCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTT  
GGGTGCTCAGAAACCTTTTCTGACTCTCATGGAAGATGGTGGGAAGGAAATAGACTGTCTCATCAACCCCTCC  
TGTGCTCTGAAGCAATCTCAGTTTTTATTAACCACCTCTCTGTGTTCTGTTAGCTATTTAACCTGTATTTA  
ATCTGTACTTCTATGCCAGCCTCAATTTTATTGATTTTTAAATTTATCTCTTCAACCAATGAAGTGTGTTG  
CAGTATGCCCAAAGCTTGCCTTTTGTGCTCCCTTTTGAATAACTTCTATCCAGAAAAAGAGATTATTGGGA  
CTTGAGATTGCGATGATACCAACTTATAGCAATGATGTACTTTAAGGGAACATCCCAACTATGTTGTGATAGAA  
GAAAGAGAAACCTTCACTTTGGCATTTTTTAATCACTGTTTATTTTCTGTTTGGGGCCAGGAAGCAGTGGG  
AGGTGGTGGCAGATATGCTTTGCATATGGATTGTTATGTTTTTATTTGGGCAAGTTTCAATGGAACCTCAA  
AAGAAGGGGGAAATGGTCAAGTTAAGCCAAAAGAACTTCTTAACAATGTATAGGTACACAGCAAAATTAAC  
AAATCCAAACAAATTTCTGAAGCTCTAGTGAATTGAGTGGTGGTGTATTCAATAAAATTTATCCCAAAAGTGT  
CTCTCAAGAGTGCAGTTCCTACAGTCACTTCTCGAACCATTGACCAAGGTGGACAGAGACAATCTCTGTAGAC  
CTTGACATTGAGAAAGATGTGAGCTGCTTACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCATG  
TGCACAAAATCATGTCTTCTTTGGGGTTTTATGTACAGACTTGTCCAATCATGTGTGTGGTCTCTGCGAGTTGCT  
GATGACTCCGATCTGAAGCTCTCTGAGTCTTGAATTTAAGTTGGGTTTATGGAATTTTTCAAAATGTGGGAAG  
GCGTGTGGTCTTCTCTGCCCTCCCTCCCTTTTGAAAATATGAAAGCAAATGTTTGAAGAATTCCTTTTGAAA  
GCTGTGTCGTGTTCCCTGTAAACTGAGCAGGTGTGTGTGGCGCGCTAAGTGCCACATGCTGTGTGTAGAGGA  
GGAGTGGCCCTGCGCGCTCCGCGTGTGCTGCTGTGATCCCTACCTGCTCCCGCTCTGTTGCTCCAGCAGAC  
TCCTGCACTCCTTTGTCATATACTCTGCATCACTGTGATCACTCACAACCTCGTGAATAAAGTTGTGTGCTTTAT  
TCGTC

**FIGURE 59**

MFTEGEEMYLQGSTVWHFDCQSTKTEELRPTRTSSSEIYSRPGSSIPGSPGHTIYAKVDNEILDYKDAAIPK  
VKAIYDIERPDLITYEPFYTSGYDDKQERQSLGESPRILSPTPSAEGYQDVRDRMIHRSTSQGSINSPVYSRHSY  
TPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSRPLTPTYAQAPKHFHVPDQGGINIYRKPPIYKHAALAAQSKSS  
EDIIFKSKFPAAQAPDPSETPEIETDHWPGPPSFAVIGPDMKRRSSGREEDDEELLRRRQLQEEQLMKLNSGLGQ  
LILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPFYGRNGLHRPVSTDFAQYNSYGDVSGGVRDYQIL  
PDGHMPAMRMDRGVSMNMLEPKIFPYEMLMVTNRGRNKILREVDRTRLERHLAPEVFREIFGMSIQEFDRLPLW  
RRNDMKKKAKLF

GAAAGCTGTATTGTGTCGACGTGGAAATCTCGTTATTITTCAGCACCCAACAGTAGCGTAATGGGAGTAAACGGA  
CTTAACCTCAITTTCTTTTCAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCAGGCCGTCAAGA  
CTTGAGTTCCTGCTCGCTTCCCGCGCGGTGCGACGCCCTCAGCCCACTTAGGATAATGGCGACAGCTGAGGTACT  
GAACATTGGTAAAAAATTATATGAGGTAAAAACAAAGAAGCTACGAAATTGTTAGACAGTCCAGGAAAGCTCTCT  
CCTGCAGTCCAAAGGACAGATTACAGCAGGAAATGCAGCTAGAAAAACCACTTGGAAAGGAAAAGCTGCAATCTC  
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAACACTGCCTTACCAGAAAAATGTGG  
GGAGACAGCTTTCAATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAAGATAGCAACTGGTTC  
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTACCACCTAAAGTGGAGTTGTTTTCAAGGA  
TGATGCCAATAATGACCACAGTGGTCTGAGGAACAGCTGATTGTCTGCAAAATTTTGGCTTGTCTGGACTTCTAT  
AGGCCAGACTGAAGTGGATCATGATGATCACTACACAGGCTATATTTGAAATCTGGAGAAATCCTGGTTGCC  
CCAGAATTGTACACTGGTGTATGAAGATTGAATTTGGTGTGATGTAACCCACCAAGAAATTGTCTTGTCTGA  
TGTATTGACAAATGATTCTGGAGAGCTCTGGCCATCAGGAGATCGAAGCCACAGAAAGACAAACAGTCTTATCG  
GGACCTCAAAGAAGTAACTCCTGAAGGGCTCCAATTTGTAAGAAAACTTTGATGGGTTGCAGAGAGATGAGA  
GTTGCTTTTTGAAA TCAGAAAGTCACTGACAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA  
AAAAATCAAGAAGGCTGTGGAAATTTTGGCATTCCATGTGAACCTTCGAGTAACATCTCGCCATAAAGGACCAGA  
TGAAACTCTTGAGGATTAAGACTGAGTATGAAGGGGATGGCACTTCTACTGTATTTTGGGAGTGGCAGGCAAGAG  
TAATGTTTGGGACCAAGTGTCTCGGAACACTGCATATCCAGTTATCAGCTGTCTCCCTCACCACAGACTGT  
GGGAGTCCAGGATGTGGTCTTCTCTCGACTACCCAGTGGTCTGGCTTCAACCGTACTTTTCCAGGAAG  
ATCAGTCTCAATTTGTCTCAGATATTTGGGTAAAGCAACCATTGGTATGGAGCAAACTGCGAGCAAGCATTTT  
GAACACATGGATTTCCCTGAAGCAGGCTGACAAGAAATCAGAGAATGTAAATTAAGGAAAGAAATGCCATTGAA  
TTTTTTAGGGGAAAAATCAAAATTTCTAATTAGCTGAAGGAAATCAAGCAAGATGAAAAGGTAATTTTAAAT  
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTCTCTAGATCCATATTAATAAATCAGACATCTAACC  
CTCCTTTCTTAGGCTAGACACCAAGATATTTACAGCAGCCTTATCATTTCTCTTACTTTATCTCTTTTCTCTTA  
AGTATTGGTGGTCACTACTATTGATTTCTTCTTAACACTGATTAATGATCTTAACTCCCTCAGCTAAAACTG  
GCATTACTGACTCCACAGCTATATTTCTCAGACTTGCATTTTTTTTTTTTTTTTGTAGACAGGGTCTCACTGTGC  
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCAGTGTCTTCCCTCTGGGCTCAAGCAGTTCTCCCACCT  
CAGCCTCTCGACTAACAGGGACTATAATCTTGCAGACCATGCCGAGCTAATTTTTATTTTTGTAGAGATGAGCT  
CTCACTATGTCAACCAGGTCTGTCTCAAACCTCCTGAACCCTAGTAATCTCTCTATCTCAGCCTCCCAAGTGTCT  
GGGTTACAGACATGAGCCACTGTGCTGTCTAGACTTGTAATTTCAAGCTGCCATTCTCCCTGTCTGTCCCATG  
GGCACTCATGAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGGCTGAGCTCTTGGTATATCTACTGTIT  
GCAAGTCAGAAGCTTGATTTTCATCATTTGATTTTTCTCAGCTTTCACATCTCACTCATCAACCAAGCTCATGTGG  
TGTTAATTTCTGATTAACCTCTGAATTTACCGTCTTCTCATCTCTGTACAAAAGCTCAAGTGAAGGGTCAAAAT  
CAACATTATCTGTATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCAAGGACTCTAAC  
ATAAACTCTCTTTTGCACACAGACTCTTTGAAAAATATACATGCTGTGACCCCTCTCTGTAGAAAAACCGACA  
CAATAAACTTACCAACAGATTTCAATTGGTCTTGGGTTCTCCGAGGCTTCAATGGTTTATAGATTAAGAAT  
GATGAGGTAGCTGGGCACAGTGGCTCACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG  
AGGTCAAGGAGTTTGAAGCAGGCTGGCCAAACATGGTGAAACCTGTCTCTACTAAAAATACAAAAGTAGCCAGC  
CGTGATGACAGGCCTGTAATCCAGCTACTCGGAGGCTGAGGATGAGAATTTGCTGAACCCGGGAGCGGA  
GGTTGCACTGAGCCTGGATCATGCCACTGCATCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAAGGGGAA  
AAAAAAATTTGCTGATGTGACCCATGAAGGGAACATATTTTCTCTGTAATTTTGGACTGCCACACATTGGTACCT  
TTAGTCTCTGAAGGCCCACTGTTTTTATCATTAAGACCTATTTGTAGCTAGTAGAGCTTTATGTTTCTGCTGTCCA  
TGAAACCTCTGTGAACACAGTGAATACAAGTAGTTTCTTCTCATGTAATTAAGGTCGAGATGAAGAATGAT  
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA  
AATTAATAAACTCATGTGACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAAATTAAGGACTTAGAA  
GATTAAAAA

**FIGURE 61**

MATAEVLNIGKKLYEGKTEVYELDSPGKVLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT  
AFTRKCGETAFAIAPQCEMPIEWVCRRIATGSFLKRNPVGKEYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF  
CFAGLLIGQTEVDIMSHATQAI FEILEKSWLPQNCTLVDMKIEFGVDVTKEIVLADVIDNDSWRLWPSGDRSQQ  
KDKQSYRDLKEVTP EGLQMVKKNF EWVAERVELLLKSESQCRVVVLMSGTSDLGHCEKIKKACGNFGIPCELRVT  
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS  
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL



GAAAGCTGTATTGCTGCACGTGGAAATCTCGTTATTTCCAGCACCCACAGTAGCGTAATGGGAGTAACGGA  
CTTAACCTCAATTTCTCTTTACAGACATTTAGCCCTCATATGCCCTTCCCTGCATGCTTCCCCAGGCCGTCAAGA  
CTTGAGTTCTGCCTCGCTTCCCCGCCGGTTCGCAGCCCTCAGCCCACTTAGGATAATGCGCACAGCTGAGGTACT  
GAACATTGGTGAATAAATATATGAGGGTAAACCAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCCT  
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACCCACTGGAAGGAAAAGCTGCAATCTC  
AAATAAAATCACCAGTTGATTTTTTCAGTTATTACAGGAAGCAGGTATTAAACACTGCCCTCACCAGAAAATGTGG  
GGAGACAGCTTTTCAATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAAGATAGCAAACTGGTTC  
TTTTCTCAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTACCACCTAAAGTGGAGTTGTTTTCAAGGA  
TGATGCCAATAATGACCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCCTTGGCTGGACTTCTTAT  
AGGCCAGACTGAAGTGGATCATGATGAGTCATGCTACACAGGCTATATTTGAAATCTGGAGAAATCCTGGTGGCC  
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAAGAAATTTGTTCTTGCTGA  
TGTTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAGACAAACAGTCTTATCG  
GGACCTCAAAGAAGTAATCTCTGAAGGGCTCCAATGGTAAAGAAAACTTTGATGGGTTGCAGAGAGAGTAGA  
GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTTACTTCTGATCTTGGTCACTGTGA  
AAAAATCAAGAAGGCTGTGGAAATTTGGCATTCCATGTGAACTTCGAGTAACATCTCGCCTATAAAGCAGCA  
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGATGGCATTCTCTGATTTTGGTGGCAGTGGCAGGCAAG  
TAATGGTTTGGGACCAAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCCCTCACCACAGACT  
GGGAGTTCCAGATGTGTGGTCTTCTTCTCGACTACCCAGTGGTCTTGGCTGTTCACCCGTACTTTCTCCAGAAG  
ATCAGCTCAATTTGCTGCTCATATTTGGGTTAAGCAACCATTGGTATGGAGCAAACTGCGAGCAAGCATTTT  
GAACACATGGATTCTCTTGAAGCAGGCTGACAGAAAAATCAGAGAATGTAATTTATGAAGAAAGAAATGCCATTGAA  
TTTTTTAGGGGAAAAATCAAAATTTCTAATTTAGCTGAAGGAAAAATCAAGCAAGATGAAAAGGTAATTTAAAT  
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC  
CCTCCTTTCTTAGGCTAGACACCAAGATATTTACGCCAGCCTTTATCATTTCTTACTTTATCCTTTTCTCTTA  
AGTATGGTGGTCACTACTATTTAGTTTCTTCTTAACTGATTAAATGATCTTAACTCCCTCAGCTAAAACTG  
GCATTACTGACTCCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGGAGCAGGGTCTCACTGTG  
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCAGTCTGCTGCTTCCCTCCTGGGCTCAAGCAGTTCTCCCACT  
CAGCCTCTCGACTAACAGGGACTATAATCTTGCAGCACCATGCCAGCTAATTTTATTTTTTGTAGAGATGAGCT  
CTCACTATGTCACCCAGGTTCTGTCTCAAATCCTGAACCTTAGTAATTTCTCTATCTCAGCCTCCCAAAGTGCTA  
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG  
GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATATCACTGTT  
GCAAGTCAGAAGCTTGATTTCATCATTTGATGTTTTTCTCAGCTTTCACATCTCACTCATCAACCAAGTCATGTGG  
TGTTAATTTCTGATTAAACCTTGAATTTACCGTCTTCTATCCTCTGTACAAAAGGCTCAAGTGAGGGTCAAAT  
CAACATTATCTGTGCTAGACAGGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCAAGGACTTCTAAC  
ATAAACTCTCTTTTGCACCAACAGACTCTTTGAAAAATATACATGCTGTTGACCTCTCTGTAGAAAAACGCCACA  
CATAAACTTACCAACAGATTCTATGGTCTTCCCGAAGCTCTCAGGAGCTTATGATGTTATAGAAAT  
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATACAGCACTTCCGGGAGGCTGAAGCAAGCAGATCACTTG  
AGGTCAGGAGTTTGAAGCAGGCTTGGCCAACTGTTGAAACCTGTCTCTCTATAAAATACAAAAGTAGGCCAGC  
CGTGATGACAGCAGCTGTAATCCAGCTACTCGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA  
GGTTGCAGTGAGCTGGATCATGCCACTGCCTCCAACCTGGGCAGCAGAGCAAGACTTGTCTCAAAAGGGGAA  
AAAAAAATTTGCTGATGTGACCCATGAAGGGAACCTATTTTCTCTGTAATTTTGGACTGCCACACATTTGGTACCT  
TTAGTCTCTGAAGGCCACAGTTTTTATCATTAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTCCGCTGTCCA  
TGAAACCTTCTGTAAACCAAGTGACTACAAGTAGTTCTTTCTCTATTGAATTAATAGGTCAGAAATAGAAAGATGT  
CAATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGACAGAGATTAGTA  
AATATAAAACTCATGTGATCACTTAAGTTTTATATCTTATGCTAGTTTATAAGAAACAATTAAGAGACTTAGAA  
GATTAATAAAAAAAAAAAAAA

**FIGURE 63**

MATAEVLNIGKKLYEGKTKEYVELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITS CIFQLLQEAGIKT  
AFTRKCGETAFIAPOCEMPIEWVCRRIATGSFLKRNPVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF  
CFAGLLIGQTEVDIMSHATQAI FEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQ  
KDKQSYRDLKEVTPEGLQMVKKNF EWVAERVELLLKSESQCRVVVLMGSTSDIGHCEKIKKACGNFGIPCELVRT  
SAHKGPDETLRIKA EYEGDIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSRLP SGLGCS  
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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**FIGURE 64**

TCGCTGCGAAGGACATTTGGGCTGTGTGTGCGACGCGGGTCGGAGGGGCAGTCGGGGGAACCCGGAAGAAGCCGA  
GGAGCCCGAGGCCCGCGTGTGACGCTCCTCTCTCAGTCCAAAAGCGGCTTTTGGTTCGGCGCAGAGAGACCCGGGG  
GTCTAGCTTTTCTCTGAAAAGCGCGCCCTGCCCTTGCCCCGAGAACAGACAAAGAGCACCCGAGGGCCGATCA  
CGCTGGGGGCGCTGAGGCGCGCCATGGTCAATGGAAGTGGGCACCCTGGACGCTGGAGGCTGCGGGGCGCTGCTGG  
GGGAGCGAGCGCGCAATGCGTGTGCTGGACTGCCGCTCCTTCTTCGCTTTCAACGCGCGGCCACATCGCCGGCT  
CTGTCAACGTGCGCTTCAGCACCATCGTGC GGCGCGGGGCCAAGGGCGCCATGGGCTTGGAGCACATCGTGCCCA  
ACGCCGAGCTCCGCGGCGCGCTGTGGCGGGCGCTACCACGCCGTGGTGTGCTGGAGCAGCGCAGCGCGCGGCC  
TGGACGGCGCCAAGCGCGACGGCACCTTGGCCCTGGCGGGCGCGCGCTCTGCCGCGAGGCGCGCGCGCGCAAG  
TCTTCTTCTCAAAAGGAGGATACGAAGCGTTTTTCGGCTTCTGCCGAGGCTGTGCAGCAAAAGTCGACCCCA  
TGGGGCTCAGCCTTCCCTTGAGTACTAGCGTCCCTGACAGCGCGGAATCTGGGTGCAGTTCTGCAGTACCCAC  
TCTACGATCAGGGTGGCCCGGTGGAATCTGCCCTTTCTGTACTGGGCGAGTGCATACAGCTTCCCGCAAGG  
ACATGCTGGATGCTTTGGGCATAACTGCCCTGATCAACGTCTCAGCCAATTGTCCCAACCATTTTGGGGTCACT  
ACCAGTACAAGAGCATCCCTGTGGAGGACAACCACAAGGCAGACATCAGCTCCTGGTTCAACGAGGCCATTGACT  
TCATAGACTCCATCAAGAATGCTGGAGGAAGGGTGTGTTGCCACTGCCAGGCGAGGCATTCCCGGTGACGCCACCA  
TCTGCCCTTGCTTACCTTATGAGGACTAATCGAGTCAAGCTGGACGAGGCCCTTTGAGTTTGTGAAGCAGAGGCGAA  
GCATCATCTCTCCCAACTTCAGCTTCATGGGGCAGCTGCTGCAGTTTGAGTCCCAGGTGCTGGCTCCGCACTGTT  
CGGCAGAGGCTGGGAGCCCCGCCATGGCTGTGCTCGACCGAGGCACTCCACCACCCCGTGTTCAACTTCCCG  
TCTCCATCCCTGTCCACTCCACGAACAGTGGCTGAGCTACCTTCAGAGCCCCATTACGACCTCTCCAGCTGCT  
GAAGGCCACGGGAGGTGAGGCTCTTCACATCCCATTGGGACTCCATGCTCCTTGAGAGGAGAAATGCAATAACT  
CTGGGAGGGGCTCGAGAGGGCTGTCTTATTATTAACTTCACCGAGTTCCCTCGGGTTTCTAAGCAGTTAT  
GGTGATGACTTAGCGTCAAGACATTTGCTGAACCTCAGCACATTCGGGACCAATATATAGTGGGTACATCAAGTCC  
ATCTGACAAAATGGGCGAGAAGAGAAAGGACTCAGTGTGTGATCCGGTTTCTTTTGTCTCGCCCTGTTTTTGT  
AGAATCTCTTATGCTTGACATACCTACCAGTATTATTCCCGACGACACATATACATATGAGAATATACCTTATT  
TATTTTGTGTAGGTGCTGCGCTTCACAAAATGTCATTGTCTACTCCTAGAAGAACCAAAATACCTCAATTTTGT  
TTTGAGTACTGTACTATCTGTAAATATATCTTAAGCAGGTTGTTTTTCAGCAGTATGAAAAATACCAAGTGTG  
GGTTTTTTTTTAGTTGCCAACAGTTGTATGTTTGTGCTATTATTATGACCTGAAATAATATTTCTTCTTAA  
GAAGACATTTTGTACATAAGGATGACTTTTTATACAATGGAATAAAATATGAGTTTCTATTG

**FIGURE 65**

MVMEVGTL DAGGLRALLGERAAQC LLLDCRSFFAFNAGHIAGSVNVRFSTIVRRRAKGAMGLEHIVPNAELRGRL  
LAGAYHAVVLLDERSAALDGA KRDTLALAAGALCREARAAQVFFLKGGYEAFSASCP ELCSKQSTPMGLSLPLS  
TSVPDSAESGCSSCSTPLYDQGGFVEILPFLYLGSAYHASRKDMLDALGITALINVSANCPNHFEGHYQYKSIPV  
EDNHKADISSWFNEAIDFIDS IKNAGGRV FVHCQAGISR SATICLAYLMRTNRVKLDEAFEFVKORRSIISP NFS  
FMGQLLQFESQVLAPHCSAEAGSPAMAVLD RGTSTTTVFNFVPSIPVHSTNSALS YLQSPITTSPSC

## FIGURE 66

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCGCTTCGCTCCTGAATCCCTAGCCATATGCGTGA  
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA  
CGGCATCCAGCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT  
CAGTGAGACGGGCGCTGGCAAGCAGTGCCCGGGGCTGTGTTGTAGACTTGGAAACCCACAGTCATTGATGAAGT  
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA  
TGCCCCAGGGGCACTACACCATTTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTGCGAAGCTGGCTGACCA  
GTGCACCCGCTTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACGTGTTCTGGGTTACCTCCCTGCT  
CATGGAACGCCTGTGAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCAGGTTTC  
CACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGTGCCTTCAT  
GGTAGACAATGAGGCCATCTATGACATCTGTGCTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA  
CCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC  
AGAATTCAGACCAACCTGGTCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCTCTCTGCTG  
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATACCAATGCTTGTGCTTTGAGCCAGCCAAACAGATGGT  
GAAATGTGACCCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT  
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT  
TGGCATCAACTACCAGCCTCCCCTGTGGTGCCTGGTGGAGACCTGGCCAAAGGTACAGAGAGCTGTGTGCATGCT  
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC  
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGCGAGTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT  
TGAGAAGGATTATGAGGAGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACTAAT  
ATCCATTCTCTTTGGCCCTGCAGCATGTGATGCTCCAGAAATTCAGCTTCAGCTTAACTGACAGATGTTAAAGC  
TTTCTGGTTAGATTGTTTTCATGGTGATCATGCTTTTCCATGTGTACCTGTAATATTTTCCATCATATCTC  
AAAGTAAAGTCATTAACATCA

**FIGURE 67**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHPRAVFDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTTIGKEIIDLVLDRIKRLADQCTRLQGGLVFHHSFGGTTSGSFT  
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFQTNLVFPYPRIHFPATYAPVISAERKAYHEQLSVADITNACFEPAN  
QMVKCDPCHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAAIAEAWARLDHKFDLMYAKRAVFVHWYVGEEMEEGEFSEAREDMAALEKDYEYEVGVDVVEGEGEEEGEE  
Y

## FIGURE 68

ATCTCTCTCGGGTGGAGTCCTTCTGACAGCTGGTGCGCCTGCCCGGGAACATCCTCCTGGACTCAATCATGSCCTT  
GTGGTCTGGTCGCCAGCAACCTGAATCTCAAACCTGGAGAGTGCCTTCGAGTGCAGGCGAGGTGGCTCCTGACG  
CTAAGAGCTTCGTGCTGAACCTGGGCAAAGACAGCAACAACCTGTGCCTGCACTTCAACCCCTCGCTTCAACGCCC  
ACGGCGACGCCAACCCATCGTGTGCAACAGCAAGGACGGCGGGGCCTGGGGGACCGAGCAGCGGGAGGCTGTCT  
TTCCCTTCCAGCCTGGAAGTGTTCAGAGGTGTGCATCACCTTCGACCAGGCCAACCTGACCGTCAAGCTGCCAG  
ATGGATACGAATTCAAGTCCCCAACCGCCTCAACCTGGAGGCCATCAACTACATGGCAGCTGACGGTGACTTCA  
AGATCAAATGTGTGGCCTTGTGACTGAAATCAGCCAGCCCATGGCCCCAATAAAGGCAGCTGCCTCTGCTCCCT  
G

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**FIGURE 69**

MACGLVASNLNLKPGECLVRGEVAPDAKSFVLNLGKDSNNLCLHFNPRFNAHGDANTIVCNSKDGGAWGTEQRE  
AVFPFQPGSVAEVCITFDQANLTVKLPDGYEFKFPNRLNLEAINYMAADGDFKIKCVAFD



## FIGURE 70

TCAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCACATGCC  
TCCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCAAAAACAAC  
CAAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAAT  
ATTTGATGGTATACAACCAAAATGTTTGGAAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATC  
TGGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAAATTACTAACAGAATGTCCCCCAATGATGGACAC  
TGAGTATACCAAACCTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT  
TCCTGATGAGGAACATTTTTATTGACATAGAAGATACACCAAGGATATCAGACTGCCTTCTCACAGTTGGCATTTCG  
TGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTACCTGGCACAGTCAC TTCACAA  
GTTGTCTACCGCCTGTCCAGGAAGGACCTATTTTTGAAGGCATAAAAGCAGITGAGTTTCTGGAGAAATTTTTGGA  
TGGTGATTAATGACTTGACTGGCTGCTCTTCCCAGAGCTGTGGCAGCTCTCCCGTAGAAGATGGGGTTTGATTG  
GCGCACCAAGATCTCCAACAGCCAGTGTGTGTTCCCATCTCTGTAGGTTCATCAATGGTGAGCACCAGCCTG  
AATGCAGAAGCGCTCCAGTATCTCCAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTTTAAACTGCATTTTC  
TAATGGGCTAAACCCAGATGGTTTCCTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAAAACAAGGAAGTT  
CTCCTTTTGAACCTGTCCAGAAATCCATCTTGTAAGGATATTAATGTTGCTTTAACTGAACTTGAGCAAT  
TAGTTGGTTTGTGTGATCATACAGTTATGTGGGTGGCTTCTAGTTTGCAACTTCAAGGGACAAGTATTAATAGTT  
CAGTGATGGCGTTGGTTTGTGTTGAGCGTTTGCACGGTTTGGATAATCTTAAATTTTGACGGACACTGTGGAGA  
CTTTXCTGTIACATAAATCCTTTTGTGTTTGAAGCTGTGTCTATTGTATTCTCTGTGCTTTATATTTTTGTCT  
GTTTATTTACGCTTTTATTGGAAATGTGAATAAGTAAAGAATTACTTGTTGTTACTTGCCAAGCAGTGACATTC  
ATAGTTTCAAATCTGTAATCAGCAATAAAATCCTAAAAATATGTACCTAAAAAAAAAAAAAAAAAAAAA

## FIGURE 71

CGGGATGCGGCGCGCGCGCTTGAACCTCCTTGGCTGGGCGAAGCTGTGTGGACCAAGCAAGTCAGGAGTGTG  
GCCATGTTTTCTGAGCAGGCTGCCAGAGGGCCACACTCTACTGTCCCCACCATCAGCCAACAATGCCACCTTT  
GCCCCGGTGCCAGTGGCAACCTACACCAACTCCTCACAACCTTCCGGCTAGGAGAGCGCAGCTTTAGCCGGCAG  
TATGCCCCAATTTATGCCACCCGCTCATCCAAATGAGACCTTCTTGGAAGAACCGGCCAGCAGCACTGGGGC  
AGTGGAGTGGGAGTGAAGAAGCTGTGTAACTGCAGCCTGAGGAGAAGTGTGTGGTGGGCACCTCTGTTCAAG  
GCCATGCCGCTGCAGCCCTCCATCTCGGGGAGGTCAGCGAGGAGCACAACTGCTCCCCAGCCTCCTCGGAGT  
AAATACATACACCCAGATGACGAGCTGGTCTTGGAAGATGAAGTGCAGCGTATCAAACTAAAAGGCACCAATTGAC  
GTGTCAAAGCTGGTTACGGGGACTGTCTGGCTGTGTTTGGCTCCGTGAGAGACGACGGGAAGTTTCTGGTGGAG  
GACTATTGCTTTGCTGACCTTGCTCCCCAGAAGCCCGCACCCCACTTGACACAGATAGGTTTGTGCTACTGGTG  
TCCGGCTGGGCTGGGTGGCGGTGGAGGCGAGAGCCTGCTGGGCACCCAGCTGCTGGTGGATGTGGTGACGGGG  
CAGCTTGGGACGAAGGGGAGCAGTGCAGCGCCGCCACGTCTCCGGGTTATCTCGCTGGCAACCTCCTCAGC  
CACAGCACCAGAGCAGGGATTCTATCAATAAGGCCAAATACCTCACCAAGAAAAACCCAGGCAGCCAGCGTGGAG  
GCTGTTAAGATGCTGGATGAGATCCTCTGCAGCTGAGCGCCTCAGTGCCCGTGGACGTGATGCCAGGCAGTTT  
GATCCCAACAATTACACGCTCCCCAGCAGCCCTCCACCCCTGCATGTTCCCGCTGGCCACTGCCTACTCCAGC  
CTCCAGCTGGTCAACAACCCCTACCAGGCCACCATTGATGGAGTCAGATTTTGGGGACATCAGGACAGAACGTG  
AGTGACATTTTCCGATACAGCAGCATGGAGGATCACTTGGAGATCCTGGAGTGGACCTGCGGGTCCGTACATC  
AGCCCCACAGCCCCGGACACTCTAGTTGTTACCCCTTCTACAAAACCTGACCCGTTTATCTTCCAGAGTGGCCG  
CATGTCTACTTTTGTGGCAACACCCCACTTGGCTCCAAAATCATCCGAGGTCTTGAGGACCAGACAGTGTG  
TTGGTGACTGTCCCTGACTTCAGTGCCACGCAGACCGCCTGCCTTGTGAACCTGCGCAGCCTGGCCTGCCAGCCC  
ATCAGCTTCTCGGGCTTCGGGGCAGAGGACGATGACCTGGGAGGCCTGGGGCTGGGCCCCGACTCAAAAAAGTG  
GTTTTGACCAGAGAGGCCAGATGGAGGCTGTTTCCTCCCTGAGTGTCCGCAATGTAAATAAAGCCTGGCACTT  
GCTGATGCG

**FIGURE 72**

MFSEQAAQRAHTLLSPSSANNATFARVPVATYTNSSQPFRLGERSFSRQYAHYATR LIQMRPFLENRAQQHWGS  
GVGVKKLCELQPEEKCCVVGTLFKAMPLQPSILREVSEEHNLFPQPPRSKYIHPDDELVLDELQRIKLKGTIDV  
SKLVTGTVLAVFGSVRDDGKFLVEDYCFADLAPQKPAPPLDTRFVLLVSGGLGGGGESLLGTQLLVDTVVTGQ  
LGDEGEQCSAAHVSRVILAGNLLSHSTQSRDSINKAKYLTKKTQAASVEAVKMLDEILLQLSASVPVDVMPGEFD  
PTNYTLFQQPLHPCMFPLATAYSTLQLVTNPYQATIDGVRFLGTSGQNVSDFRYSMEDHLEILEWTLRVRHIS  
PTAPDTLGCYPFYKTDPFIFPECPHVYFCGNTPSFGSKIIRGPEDQTVLLVTVPDFSATQTACLVNLRSLACQPI  
SFGSGAEDDDLGGGLGLP

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**FIGURE 73**

GGCACGAGGGCGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCGGCTCGGAGGCAGCGGTTGGGCTCGCG  
GCGAGCGGACGGGGTCGAGTCAGTGC GTTCGCGCGAGTTGGAATCGAAGCCTCTTAAATATGCGCAGATGACTTGGA  
CTTCGAGACAGGAGATGCAGGGGCGCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTGT  
GGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAGCACGGGCCACGCCAAGGT  
CCATCTGGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCGTCAACTCATAATATGGATGT  
CCCCAACATCAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGG  
GGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGA  
AGAGATCCTGATCACGGTGTCTGTGCCATGACAGAGGAGGCAGCTGTGCAATCAAGGCCATGGCAAAATAACT  
GGCTCCCAGGATGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCCCTCCCCGAGCCTGGCCTGGC  
TCTGGCCCGGTCTTAAGCTGGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGGTTTTCCCCACCCCTCA  
ATCTGTCGGGAGGCCCTTGCCCTCACCTAGCTCCCTTGGCCAGGAGCGAGCGAAGCTGTGGCCTTGGTGAAGCT  
GCCCTCCTCTTCTCCCCTCACACTACAGCCCTGGTGGGGGAGAAGGGGGTGGGTGCTGCTTGTGTTTAGTCTTT  
TTTTTTTTTTTTTTTTTTTTTAAATTCAACTGGAATCAGAAAGCGGTGGATTCTGGCAAATGCTCCTTGTGC  
CCTCCCCACTCATCCCTGGTCTGGTCCCCTGTGCCCATAGCCCTTTACCTTGAGCACCACCCCAACAGACTGGG  
GACCAGCCCCCTCGCTGCTGTGTCTCTCCCCAACCCCTTTAGATGGGAGGGAAGAGGAGGAGAGGGGAGGG  
GACCTGCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCCATGGGCTTTACCCCTTCCCTGCGGGCTCTCTCCC  
GACACATTTGTTAAATCAAACCTGAATAAACTACAAGTTAATATGAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 74**

MADDLDFETGDAGASATFFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS  
THNMDVPNIKRNDQFLIGIQDGYLSLLQDSGEVREDLRLPEGLGKEIEQKYDCGEEILITVLSAMTEEAVALK  
AMAK

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FIGURE 75

AGCGAGTCTCTTCTTTCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCCATGATGGTTCTGCAGG  
TTTTCTGCGGCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG  
CCACTCCAGAGAAATTACGTGTACCAAGGACGGCAGGAATGCTACGCGTTAATGGGACACAGCGCTTCTTGAGGA  
GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTCCGGGCGGTGACGGAGCTGG  
GGCGGCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT  
GCAGACACAACCTACGAGCTGGACGAGGCCGTGACCCCTGCAGCGCCGAGTCCAGCCTAAGGTGAACGTTTTCCCCCT  
CCAAGAAGGGGCCCCCTGCAGCACCAACCTGCTTGCTGCCACGTGACAGATTTTACCCAGGCAGCATTCAAG  
TCCGATGGTTCTGAAATGGACAGGAGGAAACAGCTGGGGTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGA  
CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCAGCAGGGAGACGCTCTACATCTGCCAAGTGGAGCACACCA  
GCGTGGACAGTCTGTACCGTGGAGTGGAAAGGCACAGTCTGATTTCTGCCAGAGTAAGACATTGACGGGAGCTG  
GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG  
GATCTGCATTAACAGGGTTCTGACCTCACCGAAAAGACTAATGTGCCTTAGAACAAGCATTGTGCTGTTTTGT  
TAACACCTGGTTCAGGACAGACCCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT  
TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCTTCCAACCATGTTCCCTTCTTCTTAGCA  
CCACAAATAATCAAAACCCAAACATAAGTGTTTGCTTTCCCTTTAAAAATATGCATCAAAATCGTCTCTCATTACTTT  
TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTCAITTTGGTTTACACGTAGGAAAGAAGAGAAG  
CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT  
TCAGTGAGCTGCCCCAAATCAAGTTTGTGCCCCATCCATTTATGTCTCAGACCGCTATTCTTAACATTATTCAA  
TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTTCCACAGCACTAATTCACATATATCTTACTGAGA  
GCATGTTTTATCATTACCATTAAAGATTAAATGAACATCAGAATTTAAAAATCATAAATATAATCTAATACACT

T

**FIGURE 76**

MMVLQVSAAPRTVALTALLMVLITSVVQGRATPENVYQGRQECYAFNGTORFLERYIYNREEYARFDSVGEFR  
AVTELGRPAAEYWNSQKDI LEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGFLQHNNLLVCHVTDFY  
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTFQILVMLEMPQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK  
TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

GGCAGCAGGGGGCGGCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG  
CGGGAATCACACATACCTCAGAAATCGCGGGTCTAAGTTGTAGATTTTATCAACACAAAATTTCTGAGGTGGAA  
GATGTAGTGATGGTGAATGTGCAGATCCATTGCTGAAATGGGGGCTTATGTCAAGCTTGCCTGGAATACAAACACATT  
GAAGGCATGATTTCTTCTTAGTGAATTATCCAGAAGGCGTATCCGTTCTATCAACAACTCATCCGAATTGGCAGTAC  
AATGAGTGTGTGGTTGTCTATTAGGGTGGACAAAGAAAAAGGATATATTGATTGTCAAAAAGAAAGAGTTTCTCCA  
GAGGAAGCAATCAAAATGTGAAGACAAATTCACAAAATCCAAAACCTGTTTATAGCATTTCTTCGTCTGTTGCTGAG  
GTGTTAGAAATACACCAAGGATGAGCAGCTGGAAGGCCATTCCAGAGGACTGCCTGGGCTTTGTAGTACAAGTAC  
AAGAGACCTGGATATGGTGCCATGATGCACTTTAAGCATGCGACTCTCAGACCCATCTATTTTGGATAGTTTAGAT  
TTGAATGAAGATGAACGGGAAGTACTCATTAAATAATTAATAGGCGCTTGACCCACAGGCTGTCAAAAATTCGA  
GCAGATATTGAAGTGGCTTGTATTGGTTATGAAGGCATTGATGCTGTA AAAAGAACCCCTAAGAGCAGGTTTGAAT  
TGTTCTACAGAAAACATGCCATTAAAGATTAACTCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCGT  
GAGAGAACAGAAGGCCCTTTCTGTCCTCAGTCAAGCTATGGCTGTTATCAAGAGAAGATTGAGGAAAAAGGGGTG  
GTGTTCAATGTTCAAAATGGAGCCCAAGTGGTCACAGATACAGATGAGACTGAACCTTGCGAGGCAGATGGAGAGG  
CTTGAAAGAGAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAATGGAAGCCAAAGCTGAAGATTAACTTT  
TGTGGGAAACAGAGTCCAAATTTAAGGAACACAGAGCAGCGCTTCTCGGCTGTAAATCCTAGACTTGAAGTTTTTC  
CAGTATTGAAAACCTTCAAAGCTGAATTTTTTTTATTCTAAGTATTTAAATGTTCTAACAGATGCAACATGAAA  
TGCCCTCCTAAATGTCAAGTGTGTGCACACAGTAGCTCCAACACTTTAGAGCATTTTAAAGGAGTGGCCCTATT  
CACTAGAGACAAATCTTTAAGAAATAGTTCTAAAATTGGGCTTGTGATTTCTGATGTCCTCCAGATTGGGCA  
CCCCTTTCTAGTTCAATGCCTCAGCAGATTGTCAGGGGCAATCCAAGGCAACAAATCCCAATCTTTCTATATAAA  
ATGATTTCAAGCAACATCAAAATAAATTTCTGGGATATTTAACTATAGGCTTCTCTCTGTGTCCAGCATTTAA  
AGCATTTTAAATACTAAGACCTCAATCTTTTATCTTTATTTTAGTCTTGATGTGGAATGTAGGACAGGTGAAT  
AAAGGATCTCTATAACAGATCTTTTCAAAGAAAGAGTTTTAGAGAAAATAAATTTAACTTTAACCACAGTGAAAG  
TTGACCCCTAGCGGGACAAAGCCTTAAAATGCAATTGAAAGAATTAGATCGGTTCTGTGCTCTTTATCTATTGAG  
ATTGATGACAACCTGTGTGAGAGAATTTATCACACCACGTCCTTATTGGAATAATAAGCTACTTGCCCTTGAGTT  
ATAAATCAGGGTGGTAAAGTATGTTTTAAATTTTAAAAAGCAGCTGCATTTTTATTAGTTGGAATATCACCC  
AATTTTTTATTTTTATTGCTATTAAAAATATCCACTAGATGCCACCTAGAGCTCCAGTCTTTTATAACAAAACAGG  
GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTACATGTTTCCATCATTTCTGTCTTTAAGAATAATTCG  
TACATAATAAGTTTCATAGGTAAACACATTATATCTCTTATGATACTTGAGGTACCAAGTTGATTTAATTTTTATT  
CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGCTAGACTACTC  
AATATTAAGGGCTCGGAAAAATAGAAGAGTGTGTTGGGCGAGGTAGTTTGATACCATTTATGAAGGTTTGTTCCTTT  
GTTAAATTTAGCAGCGCTGTAAGCTGCTTTGAAATCCAGAAGTTTAACTTCCAGTGCGTGGTTTCTGAGAGAGTG  
CCATGATTGCTAGCCAGCATTCATATTGGGAAATGTAGAGGAGAACCTGGATGTACTTAAGAGTGGCATATAA  
TTTTCACTCTGTCTGTTTGGAGCAAAAAAACAAGTTTAGAAAGCTGGCAACATGAAGAATGCATTCAAAATA  
TAACAGGTGCTCTTTGTTGTACGCAGAGGAATTTTTCTTTTGATTTTGTCTTAACTGAAATTTGTTATACTTCAA  
AAGCCATAACTTGAAATAACTCTGGTGGCGTCGATGGTGAGTGATTTTATCCCAAGTGGGCTTTTGCTCAGTTCT  
CATGGCAATTTTGTAAATGACCCTAGCCAGAGAATAGATCAGTATTTCACTGTATACCACGAGGAAAAAGACAAA  
CAAACTCTAAAAGTATTCATACCTTGCTAACCTAAAAGACAGCAGGAGCAAGATACATATGAGGACAAAGGTAT  
ACACCCAGTTCTGAATAACTTGAAGAACAGGCTTGCGCAAGAAGTAAGTTTATCCAACTCTGAAATTTCTGCCAG  
GCATGGTAGCTCATGCTGTAAACCTTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT  
GATCACTCCAGTGCACTCGAGCCTGGGTGACAGGGCAAGACCCTGTCTCAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 78**

MPGLSCRFYQHKFPEVEDVVMNVNRSIAEMGAYVSLLEYNNIEGMILLSELSRRRIRSINKLIRIGRNECVVVIR  
VDKEKGYIDLSKRRVSPEEAIKCEDKFTKSKTVYSILRHVAEVLEYTKDEQLESFQRTAWVFDDKYKRPGYGAY  
DAFKHAVSDPSILDSLNLNEDEREVLINNINRRRLTPQAVKIRADIEVACYGYEGIDAVKEALRAGLNCSTENMPI  
KINLIAPPRYVMTTTLERTEGLSVLSQAMAVIKEKIEKRGVFNVMQMEPKVVTDTDETELARQMERLERENAEV  
DGDDDAEEMEAKAED



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**FIGURE 80**

MERIPSAQPPFACLPKAPGLEHGDLPGMPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVSELLQGGTSRKPSDPAPKVMDFKKPPSSPAKGSEGGKNCVPVIQR  
TFAHSSGEQSGSDTDTDSGYGGESEKGLRSEQPCFKSDHGRRFTMGERIGAIKQESEEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSPVPLYPLNASAAALSSFMNPKISAPL  
LMPQRLPSPLPAHPSVDSSVLLQALKFIPPLNLETKD

GGACACCGGGCCATGCACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCACAGGGGATTTCTA  
AAGAGCTCAGACTCAGAGAGAACTATCTGCGGAGAGACCCCGAAGCCCTCTCCAGGAGCTCCCTCATCCAGACGCT  
CCGCTAGTGCAGCAGGAGCGCGAGTGGCCCGCGCTCGCCGCGCATTGAGCGGATCCCGAGCGCAACCTC  
CCCCGCTGCTGCCCAAAGCAGCGGGACTGGAGCAGCGAGACTTACCAGGAGTGTACCTCTGCCACATGTATCCA  
AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACTTACAAATTTGCCGACCCGGCTCAT  
CGAAGAAAAGAGAGCTGACCGGATTAAAGCTGAGTGCATCCCGAGCTGAAGGATTTCTTACCGCACTCTCAAACT  
TACAACCTTTGGGTCACTTGGAAAAAGCAGTGGTTCTTGAACATTACCTTGAAGCATGTGAAAGCATCAACAAACC  
AATTGATCAGCAGCAGCAGAAATCAATTCCGCTGCAGAGTGTTTATAGACTTGTGAGCTTGCAGGAGAAAT  
CGAAACAGGTGACAGAGATGTCTCTCGATGTTTCCAGACATGTGCCCGGAGGTGCTTCAGTATCTGCCCAAGCA  
CGAGAACACTCGGGACTCAAGTCTTGCTGCAGTCTGTACCCACTCCACCGGGTGTCTCGGAGTGTCTGCGAGG  
TGCTACCTCCAGGAAGCACTACAGCCAGCTCCCAAGTGATGTAGCTTCAAGAAAAACCCAGCTCTCCGCGCAA  
AGGTTTCGGAAGGTCTCTGGGAAAAACTGCTGCCAGTCATCCAGCGGACTTTGCTCTACTCGAGTGGGAGCAGAG  
CGCGCAGCGACACGACAGACAGCATGGCTATGGAGAGAAATCGGAGAAGGCGGACTTGCAGAGTGAGCAGCGTGT  
CTTCAAAGTGACACAGGCGCAGGTTACGATTGGGAGAAAGTCCGGCAATTAGCAAGTCTCCGAAGCAACC  
CCCCACAAAAAGAACCGGATGCAGCTTTCCGATGATGAAGGCGCATTTACTAGATGACCTTGTACGCTCCCC  
GTTCTTGGGCGCACCCACACCGACCGCTCCTTTCTGCTGCCCCCTTCTACTGATGCCACTCTCCAGCTAGCTCTCA  
CTGCCCATGCTGAGAAAGTCTGTGATTCGCCACTCAGTGCAGTGCTATACCCAGGCTCAACGCTCTGCGCG  
AGCCCTCTCTAGCTTCTATGAACCCACAGCATGCTCGGCTCCTTGTCTATGCCCCAGAGACTCCCTTCTTCCCT  
GCGAGCTCATCTCCGCTCGCATCTCTGCTTGTCTTGCCTCAAAGCTTGAAGCCAATCCCCCTTTAAACTTGAAC  
CAAAGCTAAACTCTCTAGGGATCTCTGTGCTTTGCTTTCTCTTCTGCTACTTCTTAAAAAGCAACAAAAAG  
TTTTTGTAAGTGTGCAAGATTGTGTGATTGTGTATCATGAGATACTGAGGACATGGAGAGACAGATTCAGGGTG  
TGTGTGTGTGTGTGTGTGTGTGTGTATGTGCTGTGCTGTGCATGTGTGCTGCGTGTGTGTATGAGTACTT  
AAAGCTCCTTTTGGCATAGGGAAGTCAGGAAGGATTGCTTGACATCAGGAGACTTGGGGGGGATTGTAGCAGAGC  
TCTGGGCTTTTCCCCACAGAGAATAGCCCTCTCGATACACATCAGCTGATTTCAAAGCTTCAAAGCTTT  
GGTCTGTGAGTCACTTTCAGTTTGGGAGCTGGGCTGTGGCTTTGATCAGAGTCACTTTCAAAGAGGGCTTT  
CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCCACTTTTGCTTTATTGCTCAGCTGTACTCCGAGAGCTC  
GGGAGTAGGAGAGACTCAGACCGAGCTTTCTGCTAACTGGGAGGTAGCAGGCATGGCATAGCAGCTAGGTGTT  
TTGGGGAGGTTTCCCGAGCTCTGCTCCCAACCTGCTCGGAAGATAAAGAGAATGATTGTTCCCTACTCAGG  
CTTTCGTAGTGATTAGCTTCTAAGGAACCTGAAATGGGCCCCCTTGACAGAGCTGAGTGCGCCCGAGGGAGGGA  
GGAGTTCCTCTGGGCTTCTGCGCATGTTTCTAGGCTTAACCATTAGTACTTGTGTCAGGGAACCAACCAAGG  
TCTGAGAAAGTGGGACACCCGAGCAGGACGACCCAAAGTGCACAAAGCTGAGTAAAAAGCTGCCCTTCAAAC  
GAATAGACTCAGTTCCTTAATCTCATCTCAAACCTCTTTTAAACCAAGCTTAGCTTCTCAAAGGCTTAACCAAGC  
CTTGGCAGCCGACAGTCTTTTCTAGTGGCTAATTCCTCTTCCCAACGGCATATGGAGTGTCTTATTTGCTAAAA  
AGGATTTCGCTCTCTCAAAGAGTTTATTTTGGTCCAGAGTACTTGTTTCCCGATGTGTCCAGCCAGCTCC  
CGACAGACTTTTCAAAGATGCATATCGCTGATTGCTGATGCTGTTTAACTTTCTTTCTGCTTTTATTGTT  
GTATTAAGCTGTGCTGCTTATTGTGAAAGCTGTATAAAATATATTTATATAAATATTTAAAGAGGAAATGTT  
TCAGATGTTTATTGTATAATTACTTGATTACACAGTGAGAAAAAATGAATGTATTCCTGTTTGTGAAGAGAAG  
ATAATATTTTCTTCTCAGGAGAGGTCAGTGTTTATTTTGGAGCCTCTTCAAGGTGTAAAGTTGTAAT  
ATTTTATCATGAGTAAATGTAAGTAGTTGTTTAAATATCATATAAAATAATCTTCTTCTGGAAG

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**FIGURE 82**

MERIPSAQPPACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVVELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPKNVCVPVIQR  
TFAHSSGEQSGSDTDDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIKQESEEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALS SFMNPDKISAPL  
LMPQRLPSPLPAHPSVDSVLLQALKP IPPLNLETKD

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FIGURE 83A

GTCCCTTTCACGCGTGTCTTCGTGTGGTGGCGCTTTTCTACTGGTCATAAAGTGCTGCTCACGCGCCGTGAACCTGCTA  
 CAGCGTGAAGGCCGCCACCCGGGTCCAGGATGCTTTTGCCGCCGCCAAGCTCCTGGCCCTGGCCCTGATCATCCT  
 CTGGGGCTTCGTCAGCATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTGGAAGGCACCAAACT  
 GGATGTGGGGAACATTGTGCTGGCATTATACAGCGGCCCTCTTTGCCTATGGGAGGTGAATTAATCTGAAATTTTCGT  
 CACAGAGGAAATGATCAACCCCTACAGAAACCTGCCCTGGCCATCATCATCTCCCTGCCCATCGTACGCTGGT  
 TGACTGCTGACCAACCTGGCTCACTTCCACCCTGTGCCACCGAGCAGATGCTGCTGCTCGAGGCCGTGGCCGT  
 GGACTTCGGGAACATATCACCTGGCGCATGTCTCTGGATCATCCCGCTCTCTGCTGGCGCTGCTCCTGTTTGGCT  
 CGTCAATGGGTCCCTGTTACATCTCTCCAGGCTCTTCTCTGCTGGGGTCCCGGGAAGGCCACTGCCCTCCATCCT  
 TCCATGATCCACCCACAGCTCTCTACCCCGGTGCCGTCCCTCGTGTTCACGTGTGTGATGACGCTGCTCTACGC  
 CTCTTCAAGGACATCTTCTCCGTCACTCAACTCTTCAGCTTCTTCACTGGCTCTGCGTGGCCCTGGCCATCAT  
 CGGATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCATCAAGGTGAACCTGGCCCTGCCTGTGTT  
 CTTCATCTGGCCTGCCTCTCTCTGATCGCCGTCTCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCAC  
 CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGGAAAAACAAGCCCAAGTGGCTCTCCAGGG  
 CATCTTCTCCACGACCGCTCTGTGTCAAGAGCTCATGCAAGTGGTCCCCAGGAGACAATAGCAGGAGGCGGAT  
 GGCTGCCGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACTCTCTCGAACCCACTCCGTTCCCCGCAACC  
 CACAGCTACGCTGCCATCGCCACTCTGCCCGTCCCTCCAGGTCGGGAGTGGAGGCTGCTGTGAAAACTCTGG  
 TAGCAATCTCATCTCCCTCAACTGAGGGGCCAGGAGACCAGGTTGGCTGTGCTCCTGCCAGGAGCAGCTTTTGGTC  
 TCTTGGCGCCTTTTCCCTCTCCCTCTTGTTTACTATATATATATATTTTTTTAAACTTAAATTTTGGGTCAA  
 CTTGACACCACTAAGATGATTTTTTAAAGGAGCTGGGGGAAGGCAGGAGCCTTCTTTCTCTGCCCAAGGGCCC  
 AGACCTGTGGGCAACAGAGCTACTGAGACTTGAACCTCATTGTACACAGACTTGCATGAAGCCAGACAGCT  
 GCCAGACACATGGGCTTGACATTCGTGAAAAACAACCCGTGGGCTTATGTCTCTGCCCTAGGGTTTGAGA  
 GTGAAACTCAGCCGTAGGTGGCACTGGGAGGGGTGGGGATCTGGGCAAGGTGGTGATTCTCCAGGAGG  
 TGCTTGAAGGCCGATGTAACCTTGACCATATCTAGCCCCAGACACCATCTGAGCCAGGGAACAGCCCGAG  
 GGTGTGGGGGTGCCCGCATCTCCCTAGCTACACGGCTTGCCCTCTGGCCCTGAGGCTCTTGGCTATTCTGT  
 TTCAGTTTGTGAGGCTGAGTTCTGGTTCATGCAGACAAAGCCCTGTCTCTCAGTCTTCTAGAAACAGAGACAAG  
 AAAGGCAGACACACCGGCCAGGCACCCATGTGGGCGCCACCCCTGGGCTCCACACAGCAGTGTCCCTGCCCC  
 AGAGGTGCGAGCTACCTCAGCCTCCAATGCATTGGCCCTCTGTACCGCCCGGCAGCCCTTCTGGCCGGTGTCTG  
 GTTCCCACTCCCGGCCTAGGCACCTCCCGCTCTCCCTGTACAGCTCATGTCTGCTGCTGATGCCCGTT  
 GTCTAGGAGACAGGCCAAGCACTGCTCAGCTCTGCCGCTGCGCTTGGAGGCCCTGGGCTCTCACCCAGTC  
 CCCACCCGCTGCAGAGAGGGAACTTAGGGCACCCCTGTTTCTGTGTGTTCCTGTAATTTTTTTCGCTATGGGAG  
 GCAGCCGAGGCTGGCCCAATGCGGCCCACTTTCCTGAGCTGTGCTGCTCCATGGCAGCAGCCAAAGGACCCCA  
 GAACAAGAAGACCTCCCGCCCTCCTCTGAGCTGAGGAGCTCTGCTTCTCAGGCCCGCGGCTTCCCTTC  
 TCCCCAGCCAGAGGTGGAGCAAGTGGTCCAGCGTCACTCCAGTGCTCAGCTGTGGCTGGAGGAGCTGGCCTGTG  
 GCAGCCGCTGAGTGTCCCAAGCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAGCGGCTGCTCAAGGC  
 GCAAGCTCTCAGCAAGTGCCCAAGTGGAGCTGCCGCCCCACCTGGGCAACCGGACCCCTCACCATCATGAGTGG  
 CCCGAGAAACCTGATGAACAGTTTGGGGACTCAGGACCAGATGTCGCTCTCTTGTGTTGAGGAATGAAGACCT  
 TATTTACCCCTGCCCGTGTCTTCCGCTGCACATGGACGACTTCAACAGCTCTGCTCATAGGACCTGCATCC  
 TTCTGGGGACGAATTCACCTGCTCCAGGGACACGCCAGCTGAGGCGGAGACCAACAGCAGCAGTCAAGCTGG  
 ACTGACTGTGTTGGGCAAGACCTCTCCCTCTGGGCTGTCTCTTGGCTGCAAAATAGGACAGCAGCTGTTGCC  
 CCACCTGCTCTGGTGCAATGTGTGTGAATCCAGGAGGCACTGGACATCTAGGACGACCGGCCCGAGGTCAGG  
 AGAAGTGTCTCCTGGAGGACCGGACCTGCTTCCCACTGGGGCGCGGGGGCCACGCACGACGTCAGCCTCTT  
 ACCTTCCCGCTCGGCTAGGGGTCTCTGGGATGCCGTCTCTGTTCCAACCTCTCTGTTGAGGAGGTGGACATGCT  
 CAAAGTACAGGGAGCTCGGCGGCTCTCGACGGCACGCACTCTCTGTTGGCTGCTGCGGCTGTGGGCGAGCATGG  
 GGCTGCCAGCGCTTGTGTGGAAAGTAGCTGCTAGTGAATGGTGGGGCTGCTGGGGTCCGCTTTCACACTGC  
 GCAGGTCTCTTCTGGGCGCTGAGCTGGGTGGGAGCTCCTCCGAGAAAGTTGGTGGGGGCTCAGTCTGTGAT  
 CCTTGGTGTCTGTGCCCCACTCCAGCTGGGAGCCCACTCAGAAGGTAGGGGCGGTGTCCCGGCTGTCTGAC  
 TGAGGCGTGTCTGCCCTTCCCCCTCTGCTGTGTGGAATTCACAGGAGACCAGGGCCACCGCAGGGGACTGTCT  
 CAGAAGACTTGATTTTTTCGCTCCCTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGGTTTCACTTTGGGG

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**FIGURE 83B**

CTTCAGGTGTTTTCAAGCACAACCCACCACAACAAGCAAGTGCAATTTTCAGTCGTTGTGCTTTTTTGTGTTTGTGC  
TAACGTCTTACTAATTTAAAGATGCTGTCGGCACCATGTTTTATTTATTTCCAGTGGTCATGCTCAGCCTTGCTGC  
TCTGCGTGGCGCAGGTGCCATGCCTGCTCCCTGTCTGTGTCCCAGCCACGCAGGGCCATCCACTGTGACGTCGGC  
CGACCAGGCTGGACCCCTCTGCCGAGTAATGACGTGTGTGGCTGGGACCTTCTTTATTTCTGTGTTAATGGCTAA  
CCTGTTACACTGGGCTGGGTTGGGTAGGGTGTTCTGGCTTTTTTGTGGGTTTTTATTTTTAAAGAAACTCAA  
TCATCCTAG

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**FIGURE 84**

MINPYRNLPLAIIISLPITLVVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIIPVFVGLSCFGSVNG  
SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIIGMI  
WLRHRKPELERPIKVNLAIPVFFILACLELIAVSFWKTPVECGIGFTIIISGLPVYFFGVWWKNKPKWLLQGIFS  
TTVLCQKLMQVVPQET



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**FIGURE 85**

AGGTCTCAGCCGGTCGTCGCCAGCTTCGCCCGCTCGCTCTGAGGCTCCTGAAGCCGAACTAGCTAGACTTTCCT  
CCTTCCCGCCTGCCTGTAGCGCGTTGTTGCCACTCCGCCACCATGTTTCGAGGGCGCCTGGTCCAGGGCTCCAT  
CCTCAAGAAGGTGTTGGAGGCACCTCAAGGACCTCATCAACGAGGCCTGCTGGGATATTAGCTCCAGCGGTGTAAA  
CCTGCAGAGCATGGACTCGTCCACGTCTCTTTGGTGCACTCACCTGCGGTCTGAGGGCTTCGACACCTACCG  
CTGCGACCCGAACCTGGCCATGGGCGTGAACCTCACCAGTATGTCCAAAATACTAAAAATGCGCCGGCAATGAAGA  
TATCATTACACTAAGGGCCGAAGATAACGCGGATACCTTGGCGCTAGTATTTGAAGCACCAACAGGAGAAAAGT  
TTCAGACTATGAAATGAAGTTGATGGATTTAGATGTTGAACAACCTGGAATTCAGAACAGGAGTACAGCTGTGT  
AGTAAAGATGCCTTCTGGTGAATTTGCACGTATATGCCGAGATCTCAGCCATATTGGAGATGCTGTTGTAATTTT  
CTGTGCAAAAGACGGAGTGAAATTTCTGCAAGTGGAGAACTTGGAAATGGAAACATTAAATTTGCACAGACAAG  
TAATGTCGATAAAGAGGAGGAAGCTGTTACCATAGAGATGAATGAACCAAGTTCAACTAACTTTTGCCTGAGGTA  
CCTGAACCTCTTTACAAAAGCCACTCCACTCTCTTCAACGGTGACACTCAGTATGTCTGCAGATGTACCCCTTGT  
TGTAGAGTATAAAATTCGGGATATGGGACACTTAAAAATACTACTTGGCTCCCAAGATCGAGGATGAAGAAGGATC  
TTAGGCATTCTTAAATTCAGAAAAATAAACTAAGCTCTTTGAGAACTGCTTCTAAGATGCCAGCATATACTGA  
AGTCTTTTCTGTACCAAAATTTGTACCTCTAAGTACATATGTAGATATTGTTTTCTGTAAATAACCTATTTTTT  
TCTCTATTCTCTCCAATTTGTTTAAAGAATAAAGTCCAAAGTCTGATCTGGTCTAGTTAACCTAGAAGTATTTTT  
GTCTCTTAGAAATCTTGTGATTTTTATAATACAAAAGGGTCTTGACTCTAAATGCAGTTTTAAAGAAGTTTTT  
GAATTTAAATAAAGTTACTTGAATTTCAAAC

**FIGURE 86**

MFEARLVQGSILKKVLEALKDLINEACWDISSSGVNLQSMDSHVSILVQLTLRSEGFDTYRCDRNLAMGVNLTSM  
SKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKMLDLDVEQLGIPEQEYSCVVKMPSGEFARICRD  
LSHIGDAVVISCAKDGVKFSASGELGNGNIKLSQTSNVDKEEEAVTIEMNEPVQLTFALRYLNFFTKATPLSSTV  
TLMSADVPLVVEYKIADMGHLKYLLAPKIEDEEGS

## FIGURE 87

TAGCTAGGCAGGAAGTCGGCGCGGGCGGCGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT  
TTACGTTTACCTCGGTGTCCTGCAGCACCCCTCCGCTTCTCTCTAGGCGACGAGACCCAGTTGGCTAGAAGTTCAC  
CATGTCATTATCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT  
CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG  
GGACAATGATAAGACTCGCTATATGGGGAAGGGTGCTCAAAGGCTGTTGAGCACATCAATAAACTATTGCGCC  
TGCCCTGGTTAGCAAGAACTGAACGTCACAGAACAAGAGATTGACAACTGATGATCGAGATGGATGGAAC  
AGAAAAATAATCTAAGTTTGGTGCGAACGCCATTTGGGGGTGTCCTTGCCGTCTGCAAAGCTGGTGCCGTGTA  
GAAGGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAACTCTGAAGTCATCTGCCAGTCCCGCGCTT  
CAATGTCATCAATGGCGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTATGATCCCTCCAGTCCGGTGC  
AGCAAACCTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA  
TGGGAAAGATGCCACCAATGTGGGGGATGAAGCGGGTTTGCTCCCAACATCTTGAGAGAATAAAGAAGGCCCTGGA  
GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCCTCCGA  
GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCTGACCA  
GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA  
CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCAGATGACCAACCC  
AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACAGATTGGCTCCGT  
GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCAGGCCAATGGTTGGGGCGTCATGGTGTCATCGTTGCGGGGA  
GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCTTGCCG  
ATCTGAGCGCTTGGCCAAGTACAACCAAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG  
CAGGAACCTTCAGAAACCCCTTGCCCAAGTAAAGCTGTGGGCAGGCAAGCCCTTCGGTCACTGTTGGCTACACAGA  
CCCCCTCCCTCGTGTACGCTCAGGCAGCTCGAGGCCCCGACCAACACTTGCAGGGGTCCCTGCTAGTTAGCGCC  
CCACCGCGGTGGAGTTCGTACCGCTTCTTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT  
CTAGCTTTGCAGTCTGTAAATGGCCCCAAGTCATTGTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCA  
GTGAGCCTCGTGTATCTCCGGGTGGCCACAGGCTAGATCCCGGTGGTTTGTGCTCAAAATAAAAGCCCTCA  
GTGACCATGAG

**FIGURE 88**

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALERDNDKTRYMGKGVSKAVEHINKTIAP  
ALVSKKLNVTQEKEIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAP  
NIVINGGSHAGNKLAMQEFMILPVGAA NFREAMRIGAEVYHNLKNVIKEKYGKDATNVGDEGGFAPNILENKEGLE  
LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSF IKDYPVVSIEDPFDQDD  
WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGMVMSHRSGE  
TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEELGSKAKFAGRNFRNPLAK

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**FIGURE 89**

GGCTGAGGCAGTGGCTCCTTGCACAGCAGCTGCACGCGCGTGGCTCCGGATCTTCTTCGTCCTTTGCAGCGTAGC  
CCGAGTCGGTCAGCGCCAGAGGACCTCAGCAGCC**ATGT**CGAAGCCCATAGTGAAGCCGGGACTGCCTTCATTCA  
GACCCAGCAGCTGCACGCGCCATGGCTGACACATTCTGGAGCAGCATGTGCCGCCCTGGACATTGATTACACCACC  
CATCACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT  
GATTAACTCTGGAATGAATGTGGCTCGTCTGAACCTCTCTCATGGAACATCATGAGTACCATGCGGAGACCATCAA  
GAATGTGCGCACAGCCAGCGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCGTTGCTGTGGCTCTAGACAC  
TAAAGACCTGAGATCCGAACCTGGGCTCATCAAGGGCAGCGGCATGCAGAGGTGGAGCTGAAGAAGGGAGCCAC  
TCTCAAATCACGCTGGATAACGCCTACATGGAAGAGTGTGACGAGAACATCTGTGGCTGGACTACAAGAACAT  
CTGCAAGGTGGTGGAAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTCTCTCCAGGTGAAGCAGAAAGG  
TGCCGACTTCTCGGTGACGGAGGTGGAATAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCTCTGGGC  
TGCTGTGGACTTGCTGCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT  
GGTGTTTTCGCTCATTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGCTCTGGGAGAGAAGGGAAAGAA  
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGTTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG  
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCTCTGCAGAGAAGGCTTCTTCTGTCTCAAGATGATGAT  
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCATCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG  
CCCCACTCGGGCTGAAGGCAGTGATGTGGCCAATGCAGTCTCGGATGGAGCCGACTGCATCATGCTGTCTGGAGA  
AACAGCCAAAGGGGACTATCTCTGAGGCTGTGCGCATGCAGAACTGATTGCCCGTGAGGCAGAGGCTGCCAT  
CTACCACTTGCAATATTGAGGAACCTCGCGCCCTGGCGCCATTACCAGCGACCCACAGAACCCACCGCCGT  
GGGTGCCGTGGAGGCTTCTTCAAGTGTGTCAGTGGGGCCATAATCGTCTCTACCAAGTCTGGCAGGTCTGCTCA  
CCAGGTGGCCAGATACCGCCCAAGTGCCTCCATCTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA  
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCTTGGGCTGAGGACGTGGACCTCCG  
GGTGAACCTTGGCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCAATTGTGTGACCCG  
ATGGCGCCCTGGCTCCGGCTTACCAACACCATGCGTGTGTTCTGTGCGC**TGTA**TGGACCCAGAGCCCCCTCT  
CCAGCCCCTGTGCCACCCCTTCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAGAACTCACTCTGGGCTGT  
AACGTGGCACTGGTAGGTGGGACACAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTGACGCCT  
GCTCTAGTGGGACAGCCAGAGCCTGGCTGCCCATCATGTGGCCCCACCAATCAAGGGAAGAAGGAGGAATGC  
TGGACTGGAGGGCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCTTCTCTGTGTACTCTGTCCAGTTCTCT  
TTAGAAAAATGGATGCCAGAGGACTCCCAACCTCGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC  
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTTAGCTCTCTAGGC  
CTCTCCAGTTTGACCTGTGCCACCTCCACTAGCTGTCCTGCAGCAACACTCCACCTCCACCTTCCATT  
TCCCCACTACTGCAGCACCTCCAGGCCTGTGGCG

**FIGURE 90**

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPPI TARNTGI ICTIGPASRSVETLKEMIKSGMNVARLN  
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGSTA EVELKKGATLKITLDNAYME  
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGA AVDLPAVSEKD  
IQDLKFGVEQDVMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE  
IPA EKVF LAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV  
RMQNL IAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAP I  
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVI VLTGW RPGSGFTNTM  
RVVPVP

CCGAGGCCAAGTCCCGGGCGCTAGCCCACTCCACC CGCCTCTTGGCTCCTCTCCTCTAGGCCGTCGCTTTCCGG  
GTTCTCTCATCGCTTCGTCGTTCCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTTCAGGGAAGATCGGAGGCGAG  
GAGAAGCCGATTGGTGCCTGGTGAAGAGAAGCAAAAGGAAGGAGGCCAAAAGAGAACAAGAAAGGATCTGGAGAT  
GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTACACACGCTTTGAGATGTATAATATACTAAAAAGCA  
GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAAGTCACCTTTGCCTGATGGTAAA  
CAGGTGATGCGGAATCTTGGAAAACTACACCATATCAAATTCGCTGTGGAAATTAGTCAAGGCCCTGGCCGACAAC  
ACCGTTATTGCTAAAGTAAATTAATGTGTGGGACCTGGACCGCCCTTGGGAAGAGATTGTACCTTGGAGCTT  
CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGGCATGGAA  
AGAGTCTATGGTGGATGTTTATGCTACGGCTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA  
GGGGGTGTGCTAGCAATGATTCTCTTCTCTGGAGGCTTTGTGTAAGAAAAATCATTAAAGAAAAACAAGCTTTT  
GAAAGACTGGAAGTTAAGAAAGAACTTTACTGGCAATGTTTAAAGTACAACAAGTTCAAATGCCGGATATTGAAT  
GAAAAGGTGAATACTCCAACCTACCAAGCTCTATAGATGTGGCCCTTTGATAGATCTCTGCGGGGCTCCTCATGTT  
AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGCTACTGGGAAGGCAAGCAGATATG  
GAGACTCTCCAGAGAATTTATGGCATTTCATTCCAGATCTCTAAAATGTTGAAAGAGTGGGAGAAGTCCAAAGAG  
GAAGCTAAAAACCGAGATCATAGGAAAAATTGGCAGGGACCAAGAATATATTCTTTATGAACCTCAGCCCTGGA  
AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCATTATTGAATTCTATTAGGAGCGAATATAGGAAA  
AGAGGATTCCAGGAGGTAGTCACCCCAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC  
TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTGGCCTGAAACCCATGAATGCCACAGGACAC  
TCCCTTATGTTTGATCATCGGCCAAGGTCTTGGCGAGAACTGCCTCTGGGGCTAGCTGATTTTGGGGGTCTTCAT  
AGGAACAGAGCTGTCTGGAGCACTACAGGACTCACC CGGGTACGAAGATTCCAACAGGATGATGCTCACATATTCT  
TGTCCTATGGAGCAGATTGAAGATGAAATAAAAGGTGTTTGGATTTTCTACGTACGGTATATAGCGTATTTGGA  
TTTTCTTTTAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGAGGATATCGAAGTATGGGATCAAGCTGAG  
AAACAACCTTGAAAAAGCTGGAATGAATTTGGTGAAGAGTGGGAGTTAAACTCTGGAGATGGAGCTTTCTATGGC  
CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACAGTGTGCAACCATCCAGCTGGATTTCCAG  
TTGCCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGAGGATAAGAAAAGGCCAGTGATTGTTCATCGA  
GCCATCTTGGGATCAGTGGAAGAAGTATTGCTATCTCTCACAGAAAACTATGGGGGCAAAATGGCCCCCTTTTGG  
CTGTCCCCCTGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCAAAACGTACGACAACAA  
TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTGCAAAATGCA  
CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAGAAAGAGAAAACTCACTGGCACTGTTAATATCCGCACA  
AGAGACAATAAGGTCCACGGGGAACGCACCATTTCTGAAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC  
AGCAACAGGCAGAGAAGAATTTAAATGAAAAAATTACCAGATTGGCTCCATGGAAAAGGAGGAACAGCGTTT  
CCGTAAAAATTGACTTTTGTACTGAAACGTCAATTTTATATTGAACCTGGAGGAGGAGTTTGGCAAGCTGAAAT  
AGGTCAACCTGACGGCGTAACATTTTGGACCTAGTCAGTTTTTAAACAATGTGCATTTGAAGGAGTTAAATTA  
AGAGAGCCAATAAAATGATTTTACTCATTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTTAGTGTA  
ATGTGGGAGAACTTTTGTGAAATTTAATGCAATTGAAAAAGTTTCAAATTAATTAAGATAACTAGAAATTGGT  
TATGGTGTAACCGAATTC

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**FIGURE 92**

MGGEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWEYIYTRLEMYNILKAEHDSILA EKA EKDSKPIKVTL  
PDGKQVDAESWKTTPYQIACGISQGLADNTVIKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG  
EGMERVYGGCLCYGPP IENGFFYYDMYLEEGGVSSNDFS SLEALCKKI I KEKQAFERLEVKKETLLAMFKYNKFKC  
RILNEKVNTPTTTTVYRCGPLIDLRCRGPVHRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE  
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG  
HWQHYS ENMFSFEVEKELFALKPMNC PGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQQDD  
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVWDQAEKOLENSLNEFG EKWELNSGDG  
AFYGP KIDIQIKDAIGRYHQCATIQLD FQLPIRFNLTYVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL  
APFWLSPRQVMVVPVGPTCDEYAQNVRRQQFHD AKFMADIDLDPGCTLNKKIRNAQLAQYNF ILVVGEKEKITGTV  
NIRTRDNKVHGERTISETIERLQQLKEFRSKQAE EEF



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**FIGURE 93**

GGCACC GCGCGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCTGTCGGCGCGCGGCCAAGGAGGAGGAGACACA  
GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTTCGGGCCGAGCCTGCGGGCGC  
CTTCCCTCGCGGTGGGACGAGCGGGCCCCGCGCGTCATCGCGCGCGAGGAGCCGCCGCGCTCGGCCCTAGCA  
**TG**TCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG  
CGAGTCGCGGCCGGGCTGGACGGGCGCGCGCGGGCTGGAGGCGCGACGCCGCCGCCCGAGCGGGGAATCA  
GAACGCGCGCGAGGACCATCAACGCCAGCAAGACGAGGAGGACGCGGGAATAATGTTCTGTTGGTGGCCTGA  
GCTGGGATACTAGCAAAAAAGATTTAAAGACTATTTTACTAAATTTGGAGAGGTTCGTTGACTGTACAATAAAAA  
TGGATCCCAACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC  
TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCATAAAAGGCCATGGCTATGAAGAAGGACCCGG  
TCAAGAAATCTTCGTTGGGGTCTGAATCCTGAAAGTCCCACTGAGGAAAAGATCAGGGAGTACTTTGGCGAGT  
TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTGTGTTTATCACCT  
TTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCTACTGTCAGTGAAGCAAGTGTGAGATCA  
AGGTGGCCAGCCCAAGAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGCCGTGGAAACCGCAACCGAGGGA  
ACCGAGGCAGCGGAGGTGGTGGTGGAGGTGAGAGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA  
ACCAGGGCTACGGCTACCGCAGGGGCTACGGGCTGGCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG  
GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA  
ATAACTACAAGCCATCT**CGA**GGCGGCCAAGGGAGCGACCAACTGATCGCACACATGCTTTGTTGGATATGGAGT  
GAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCTGTCCCATGTGCATCTTATTTAAATTTTC  
CCCCATGGAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGGTGTCTGAGAGGC  
CATAGCGCCATCATGGGCTGATTTTATTACAGGTCCCCAGAACGAGGTGAGAGGCTCTGCTTCCTGCTGCCG  
CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAGAGTAAATTGTATCTTAGGAAACCAAGTGTACCTTTTTT  
CACCTTTTAAATTTATATTTTGGGTCATACATTCTGTAAACGGAAGTGTTAATTTTACTGTACTTTTGGTA  
CCCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACAGTGTCTGATTTTGCACAACTGGATATTGAAGC  
TATCCAAGCTTTTGAATAAAATTTAAAAACCCCAAGCCTGGGTGAGTGTGGGAAAAAAAAAAAAAAAAA

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**FIGURE 94**

MSEAGEEQPMETT GATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGL  
SWDISKKDLKDYFTKFGVVDCITKMDPNTIGRSRGFGF ILFKDAASVEKVL DQKEHRLDGRVIDPKKAMAMKKDP  
VKKIFVGG LNPESPTEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVFITFKEEEPVKVLEKKFHTVSGSKCEI  
KVAQPKEVYQQQYGS GGRGNRRNRGRSGGGGGGGGQSQSWNQYGNYNQGYGYQQGYGPGYGGYDYSPIGY  
GYGPGYDYSQGSINYGKSQRRGGHNNYPY

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FIGURE 95

GCCGGGGAAGTCATGCTCGTCTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTGTGAGACT  
TCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCACTGGTACTGAGGTTTGCTGCCTGCCTTCTTGCCATGCTCT  
AACGAAGTAGAACAAGTGCAACCAATGGTCAGCCCGACCAACAGCCGCGACCAAAAGCACCCTCAAAGAAGGAA  
AAAAAGAAAGGCCCTGAAAGAGCAGATGAATATCTCTAGCAAGTTCAAAGGCCGATGGCGTTAAATATAAGGCC  
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAAACTAAAG  
GGAATGGCGGCACGTGGTCCGTCTCAGGGACAAACAAAAAGGATCTGGGTCAACATTTCCTTTCTGGGATA  
AAATTAATTGATGAGAAAATCGGGTAAATAGAGCATGAACATCCAGTAAATAAGATTCTTTCTATTGGCCGTGAT  
GTGACAGACAACCGGCCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTACCATAAAAAACCGGG  
CAACAGGCTGAACCAATTAGTTGTTGATCTTAAAGACCTTTTCAAGTTATCTATAATGTAAGAAAAAGGAAGAA  
GAAAAAGAAAAGATAGAGGAAGCAGCAAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA  
ACTAACAAACTGAAATCGGGTGTGTAGCAGATGGATTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT  
CCAACGAAAGCAAGATATCTCTGTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTCTTTAAGAGAA  
AATCCATTCTTAAACAAACGGCATCACCTCCTGTCTCTCTCGACCAACGCCCTCAGGCATCCTCTTGCCGTGAA  
AATGCCTTTTCTGCCAATCTCAACTTCTTCCACCCTTAATCCTGATCCTTTCCGTGACGATCCTTTACACAG  
CCAGACCAATCGACACCTTCTCGTTGATTCTCTCAAATCTCCAGATCAGAAGAAAGAAATTCGAGTAGCTCG  
TCTACTCCGCTGAGTAATGGGCCCTTGAATGGTGATGTTGACTACTTTTGGTCAGCAATTTGACCAGATCTCTAAC  
CGCACTGGCAAAACAGAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAAACCCAGCCAGCAGTGAGAAT  
CAAAATGGGGTACTGAAAGAGAACAGAACGCCCTTCTCTGTCAAATCCTCCCGAACCCCTTTGTGGGAAGCCCT  
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAAGCTCTGTCCAGTCTCACCACATGACTCC  
ATAGCCATTATCCCACTCCACAAAGTACCAAAACAGGAAGGGCAGAGGAGTGCTAAGTCTTCAGCCAATGAC  
TTGCTTGCATCAGACATCTTTGCTCCTCCGCTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACACATACA  
GCCCTGCAGCCCAACCTCTGGATCTCTTCAAACAAGTGCTCCTGCCCAAGTGGGGCCCTGGTGGGTCTAGGT  
GGTGTAAGTGTCACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCCTTCAATG  
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTGTAGTCAGCCGCTCATTTTGGTACAAGTCCAGCTGTT  
TCAGGTTGGAACAGCCCTTCAACCTTTGCAGCTCAACTCCCCCTCCAGTGCCTGTTGTCTGGGGCCCTTCTGCA  
TCTGTGGCACCAATGCTTGGTCAACAACAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTCCAGCTCCT  
GCTGTGTCACCTCAGCCCCATCCATGCACTCCTCTCTCTGGTGACTCCTCCTCAGCCACCTCCCAGAGCTGGC  
CCTCCCAAGGACATCTCAGTGATGCTTCACTGCCTTAGACCCACTTGGGGATAAGAGATCAAGGATGTGAAA  
GAAATGTTAAAGATTTCAACTGCGGCAGCCACTGCTGTGCCGCGGAGGAGAGCAGACTTCTTCTGGG  
ACTTTGAGTGCCTTTGCCAGTTATTTCACAGCAAGGTTGGCATCTCTCAGGAGAATCGACACCATGATGACTTT  
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC  
AAATCTACTGACAATGCAATTTGGAACCCCTTCTTTAAAGATTCTTTGGTTCTATCACAAGCCTCTGTGGCTTCT  
TCTCAACCTGTATCTCTGAGATGTATAGGGATCCATTTGAAATCCTTTTGGCTTAAATCTGAACTTGGTCTGC  
AGACCATCCAGAGGAATAAAAGGTTGGCCCTTAGTAGTCAAAAACAAGGCTGATAGCCAGACAGCTTCTGATTT  
TGCCCTTGTTCAGCTTTGACGTATTACTGTGCTTATTCTCATTTGCCCTTCTTACTTGTAAAATGCTTTTC  
ACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAATAAATTAAGATCTCTAAACTCTCTAGCTTAAG  
TGTAATGAAGTAGAGTAGTTTCCCTACTGAACCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCCT  
CTACCTCTGGTGGGATGTGAGCCACCAACATCCCTCATATCACTGTTTGGTAATAATTTTCAATGCTTA  
TTGTTGAGAGTTGTTTGGGGTCTGTTTCAGAGCATAAACCTAAAGGTTATAGTAGAACAGGACCTCTCTTA  
AAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTAAAGTAAATGAAGCAACTCAACTCTCTT  
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTAAAGAGATAGCTTCTCTTCTTCTGAAGATCAATTTCT  
CCAGGCCAAGATGTGCTTTTCTCCCATTTCTGTAGCTATTGCAAAATGAGGGAAGAACATTATCATCTCTC  
CTCCCTCTTTTTCTGATTTCTTTTCTCAGTCAGTTTGTCTCGGTTCAAGTAGTATTACCACCTTTCACAA  
GCACAGACTTTCACAGGGCAAAAAAAGAAAAAAGAAAAA

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**FIGURE 96**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKDGVKYKAKLIGIDDPDARGDKMSQDSMMK  
LKGMMAARGRSQGQHKQRIWVNI SLSGIKI IDEKTGVIEHEHPVNKISFIARDVTDNRAFQYVCGGEGQHQQFTTIK  
TGQQAEPVLVDLKD LQVIYVKKKEEEKKKIEEASKAVENGSEALRLDDQTNKLSGVDQMDLFGDMSTPPDL  
NSPTESKDILLVDLNS EIDTNQNSLRENPF LTNGITSCSLPRPTPQASFLPENAF SANLNFFPTPNPDPFRDDPF  
TQPDQSTPSSFDLSKSPDQKKENSSSSSTPLSNGPLNGVDYFGQQFDQISNRIGKQEAQAGPWPFSSSQIQPAV  
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRRRTAKSSA  
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPOAGPWNTASLVFNQSP  
SMAFGAMMGQPSGFSQPVIFGTSPAVSGWNQPSFFAASTPPVPVWVGPSASVAPNAWSTTSPLGNPFQSNIFP  
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS  
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV  
ASSQPVSSEMYRDPFGNFFA

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FIGURE 97

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGCTGTGGGAGGTTATGTTTATTTGAGACT  
TCTCCATCGGGATCGCCTGGGTGTCACCAAGTGTCCACTGGTACTGAGGTTTGCTGCGCTGCGCTTC TTGGCCATGCTCT  
AACGAAGTAGAAACAAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGACCAAAAGACCCCTCAAGAAGAGGAA  
AAAAAGAAAGGCCCTGAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGCGGATGGCGTAAAAATAAAGGCC  
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAAGACTCTATGATGAAACTAAAG  
GGAATGGCGGCACGTGGTGGCTCTCAGGGACACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA  
AAAAATAATTGATGAGAAAC TGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTCTTTCTATTGGCCGTGAT  
GTGACAGACAACCGGGCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTTACCATAAAAACCGGG  
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA  
GAAAAGAAAAAGATAGAGGAAGCCAGCAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA  
ACTAACAACTGAAATCGGGTGTGACCAGATGGATTGTTTGGGACATGTCTACACCTCCTGACCTAAATAGT  
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTTCTTAAAGAGAA  
AATCCATTCTTAACAAACGGCATCACCCTCCTGTTCTCTCTCGACCAACGCCCTCAGGCATCCTTCTTGCGCTGAA  
AATGCCTTTTCTGCCAATCTCAACTCTCTTCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTCCACAG  
CCAGACCAATCGACACCTTTCTCGTTGATTCTCTCAAACTCCAGATCAGAAGAAAGAGAATTCGATAGCTCG  
TCTACTCCGCTGAGTAATGGGCCCTCGAATGGTGATGTTGACTATTGGTCAGCAATTTGACCAGATCTCTAAC  
CGGACTGGCAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTGCGAACCCAGCCAGCAGTGAAGT  
CAAAATGGGGTATCTGAAAGAGAACGACACGGCTTCTCTGTCAAACTCTCCCGAACCCCTTTGTGGGAAGCCCT  
CCCAAGGACTGTGCATACAGATGGCGTAAAGCAGGACTTGGAAAGCTCTGTCCAGTCTCACCACATGACTCC  
ATAGCCATTATCCACCTCCACAAAGTACCAACCCAGGAAGGCGAGAAGGACTGCTAAGTCTCTAGCCAAATGAC  
TTGCTGCAATCAGACATCTTGGCTCCTCCGCTCTCAGAACCTTTCAGGCCAGGCCCTACCCACAGGACAACCTACA  
GCCCTGCAGCCCAACCCCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCCTGGTGGGTCTAGGT  
GGTGTAAGTGTACACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTCTCAATCAGTCCCTTCAATG  
GCTCCGGGAGGATGATGGTGCTCAACCTTCAGGTTTAGTCAGCCCGTCATTTTGGTACAAGTCAGCTGTT  
TCAGGTTGGAACAGCCTTCACCTTTGACGCTCAACTCCCCCTCCAGTGCGCTGTGTTCTGGGGCCCTTCTGCA  
TCTGTGGCACCCTAATGCTTTGGTCAACAACAAAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTTCAGCTCCT  
GCTGTGCCACTCAGCCCCATCCATGCACCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCAGAGCTGGC  
CCTCCCAAGGACATCTCAGTGATGCCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA  
GAAATGTTTAAAGATTTCCAACTGCGGCAGCCACCTGCTGTGCCCCGCGGGAAGGAGAGCAGACTTCTCTGGG  
ACTTTGAGTGCCCTTTGGCAGTTATTTTCAACAGCAAGGTTGGCATCTCTCAGGAGAATGCAAGCATGATGACTTT  
GATGCTAATCAACTATTGAACAAGATCAATGAACACCACCAAGCCAGCTCCAGACAGATTTCCCTGGCCATTACC  
AAATCTACTGACAATGCATTTGAGAACCCCTTTCTTAAAGATTCTTTGGTTCATCAACAAGCCTCTGTGGCTTCT  
TCTCAACCTGATCTCTTGAGATGATAGGGATCCATTGGAAATCCTTTTGCCCTAAATTTCTGAACTTGGTCTGC  
AGACCTCAGAGGAATAAAAGGTTGGCCTTAGTAGTCAAAACAAAGCTGATAGCCAGACAGCTTCTGATTTCT  
TGCCCTGTGTCAGCTTTTGACGTATTAATCTGTTGCCTTATTTCTCATTGCTCTTACTGTGATGATGTAATGCTTTTC  
ACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAATAAAATTAAGATCCTAAACTCTCTAGCTTAAG  
TGTAATTAAGGTACAGTAGTTTCCCTACTGAACCCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCCTT  
CTACCCCTGTGGTGGGAGATGCAGCCACCAACATCCCTCTCATATCATAGTTTGTGAAATAAATTTGAAATGCTTTTC  
TTGTTCAAGTGTGTTGGGGTCTGTTTTCAGAGCATAAACCTAAAGGTTATAGTAGAACAGGCACCTCTCTTA  
AAGAAATCTTGCTCTCAGACCATCAGTTACAGAGAAATTTCTTAAAGTAAATTTGAAGCAACTACAACCTCTCCTT  
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTAAAGAGATAGCTCTCTCTTTCTTCTGAAAGATCAATTTCTC  
CCAAGGCCAAGATTGCTCTTTCTCCCAATTTCTGTGATGCTATTGCAAAATGAGGGAAGAACATTATTATCTCTC  
CTCCCCCTTTTTCTGATTCTTTTTCTCAGTCAGTTTGTCTCCTGGGTTCAAGTAGTATTACCACCCCTTTCACAA  
GCAACAGACTCTCAGGGCAAAAAAATAAAAAAATAAAAAA

**FIGURE 98**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDDVPDARGDKMSQDSMMK  
LKGMAARGRSQGQHKQRIWVNI SLSGIKI IDEKTGVIEHEHPVKNISFIARDVDNRAFGYVCGGEGQHOFFTIK  
TGQQAEPLVVDLKDLFQVIYNVKKKEEEKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL  
NSPTESKDILLVDLNSEIDTNQNSLRENPF LTNGITSCSLPRPTQASFLPENAFSANLNFFPTPNPDFFRDDPF  
TQPDQSTPSSFDLKSPPDQKKENSSSSSTPLSNGPLNGDVDFYGGQFDQISNRTGKQEAQAGPWPFFSSSQTPAV  
RTQNGVSEREQNGFSVKSSPNPFVGGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRRRTAKSSA  
NDLLASDIFAPPVSEPSGOASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTITLPQAGPWNTASLVFNQSP  
SMAPGAMMGQSPSGFSQPVI FGTS PAVSGWNQSPFAASTPPPVVVGWGPSASVAPNAWSTTSPLGNPFQSNIFP  
APAVSTQPPSMHSSLLVTPPPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS  
SGTL SAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV  
ASSQPVSSSEMYRDPFGNPFPA

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FIGURE 99

AGCGCTCAGATACGGCAGCGGTAGCAGGGCGGGACCGAAGCGGTGCCTCAGTGTCTTCCCTCCCTCGCCTGG  
CCTCGCCGTCCTTCTCCCGCAGCGCGGACCGGAACATGTGATCCCGAAGTTTCGGGGCCCTTTGCTGTGTGGGAT  
AAACAGTAAATGCGCGAGGCTGCAACTCCCGGAACAACAGGCCAACATCAGGAGCAGGAGCGGCAGCGGCAGCG  
CGGCAGCAGCCTCCCCACCCCGATCCCCACAGTCACCGCCCGTCCCTGGGGGCGGGCGAGGGGGCGGGCGGA  
GCGACGGCAGCGCGGGCGGTGGACTAAACAGGTCACTGCAGGTATTTTATGCATGGGGTTTGAAGGAAGGAG  
ACAACGTGCTGCTACTCGCATGACCTCTCTGCAGTCGGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACT  
GTATTTATGGAGACCGCTGCAGATATGAACATAGCAAAACCATGAAACAGGAAGAAGCAACTCTACAGAGCTAA  
CTACAAAGTCATCCCTTGCTGCTTCTCAAGTCTCTCATCGATAGTTGGACCCTTGTGAAATGAATACAGGCG  
AAGCTGAGTCAAGAAATCAAACCTTTGCAACTGTAGGAGCAGGTTGAGAGGACTGGGTGAATGCTATTGAGTTTG  
TCTCTGGGCAACCTACTGTGGCCGTACTGCGCTTCTGCACTGAAGACCCCTGCAAGGCTCAGTGACCAAGG  
AAGAATCAGAGAAAGAGCAAAACCGCGTGGAGACAAAGAAGCAGCTGTGCCCTATGCTGCAGTGGGAGAGTGCC  
GATACGGGGAGAAGTGTGTATCTCCACGGAGATTCTTGTGACATGTGTGGGTGCAAGTCTCTGCATCCAATGG  
ATGCTGCCAGAGATCGCAGCATATCAAATCGTGCAATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGCCG  
TGCAGCGCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGTTCTATGAGAAAGCCAACCCAGTGAGCGCC  
GCTTCGGGATCTCTCAAACCTGCAACCCACACCTACTGTCTCAAGTGCATTCGCAAGTGGAGGAGTGCTAAGCAAT  
TTGAGCAGACATATAAAGTCTCTGCGAGAATGCCGATACATCTAACTTTGTCATTTCCAAAGTGAAGTCTGGG  
TGGAGGAGAAAGAGAGAGAGCAGAAACTCATTCTGAAATACAAGGAGGCAATGAGCAACAGGCGTGCAAGTATT  
TTGATGAAGGACGTGGGAGCTGCCATTGGAGGAACTGTTTTACAAGCATGCGTACCTGATGGCCGTAGAG  
AGGAGCCACAGAGACAGAAAGTGGGAACATCAAGCAGATACCGGGCCCAACGAAGGAACCACTTCTGGGAAGTCA  
TTGAGGAAAGAGAGAACAGCAACCCCTTTGACAACGATGAAGAAGAGGTTGTCACTTTGAGCTGGCGAGATGT  
CTGTTATGCTTTTGCGTCGAGGTGGGACGACGAACATAACAGACTCTGAAGATGAGTGGGACTTGTTCATGATG  
AGCTGGAAGATTTTTATGACTTGGATCTATAGCAACCTTGCCTGGCGTGTGAACCTGGTCTGCTGACCTCAGACAG  
CAGCTGTCCCTGTGGTGGTGTGGCAGTGCCTGTGTTCTCTCTAGGCAAGGCTCTCAACTCCAGGTGCTGTCTCT  
AAGAATTTTTTACCAGGCGCTGCTTCTCAACCCCTCACCTTTCCCTGAGGAGTGTGTTGTTTTCCCTGTTGAAA  
AAAGTTACAAAAATAAATCTTAAAGTTAGTTTTTGTAAACAGAAATTTAACTGTGACAGAGTATGTTAGGTGTG  
TTGCGTCATCTGTTTTCAACAGATTGCATTTATGGACTTTTACACACATCAATTTGAGGACCCAGGTTCAAAA  
GTAAAGCAGTGGCCCTGCTTTGGGGTCCAAGAATAGGAGTGATGGGTGAAGGGACCTAAGCTGGCCCAATAGCCC  
TCTGCCCAGACATGGGATGTGGATCCTTGAGGTTTCTGTTGAAATCTGCACATCTGTGTTTTATATCTGTCTCC  
CTACCTTGTAATCCCTACCACGTGCATTTGTTCTGTGGTTTTGGTCTCTGTGTTAATTGCACAAAGTAATACTA  
CTGGGTAAACGAATCAGGTGTGAATGTGTTGAGATTTTTTACTGTTTTGCATGATAGGAAAAATTGAGAAAGAAAT  
ACGTATAAAAGATAGAGAGGCATAAATCAATGCAGAGTTGGAAGTTGGCTCCCAAGGGCTGCATGGTGTGAGT  
GTGTTGGTGTGTGATAAGCTTCTCATCTCGATAGATGCAATTTCTAGCCTTAGAGTAAAGAAACCTCGTTTAG  
TGGTTTTAAGCCTTTGTGTGGCAGATAGATCTTAAAGGGCAAAGCAGTATATTGGTAGTTGTCAATATAGCAGTGTCT  
AGCTCTGCTATATAAATAGAGAAATGGGGTTAGCCATAGAGGTTAAACCTACCTGGTTATCCCATATAATAACA  
CAACTGGGTCTTGATACAGAGTGTATTTAATGTTTTACGATCTAGCCTTCCAGTACAGGCACCTTTCTGAGA  
AACCTTTGCTCTCACTTGAGGCATTTTGTGTGCGGGTTTTGTGTTGTTTTGTGGGTATTGCGCTCATCTCCAC  
CCCTGAGCTTTTCAGGTAGACAGCGTGATTTCAAACCTCTGTTCTAAGGTGTTTTATTGTAGTGGAGTAATGGGTTT  
GCAGTGATAAGTCATACTTTTTCCACCGAAAGGGAGGGCTTGGGAATCCCTGAGATAGCTAAAGTTAAGTTGTTG  
GAAGAATTCCTTGATTGGAATTTGACCTTTGTGTTTTGTGCTGTGTTCTGAAATAAATCAGGGGATGCTCC  
TGGTTTGTCTCATCTGCTTTGATTCCTTGGATCCCACCCATCTTTCACTTTAAGAAAAAACAAATAATTTGTT  
GCAGAGGTCTGTGATTTGCTGAGCTGCCCTTTTGTGAAGAAGCACTTTTCCCAATAAACCACTTAAAAA  
AA

**FIGURE 100**

MAEATP GTTATT SGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC  
RYSHDLSDSPYSVVKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGEAE  
SRNSNFATVGAGSEWVNAIEFVPGQPYCGR TAP SCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGE CRYG  
ENCVYLHGDS CDMCGLQLLHPMDAAQRSQH IKSCIEAHEKDMELSF AVORSKDMVCGICMEVVYEKANPSERRFG  
ILSN CNHTYCLKCIRKWRSAKQFESKIIKSCPECRITSNFVIPSEYWVEEKEEKQLILKYKEAMSNKACRYFDE  
GRGSCPFGGNC FYKHAYPDGRREEPQRQKVG TSSRYAQR RNHFWELIEERENSNPFDNDEEEVVFELGEMLLM  
LLAAGGDELTDSEDEWDLFHDELED FYDLDL



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**FIGURE 101**

AGATGTTTAAAAATACCTTTGATXCTCXGTTTCCACCTCTCTTAAATTTGCTTTTCCCTATGTTAAATATACAGTCA  
TCACXTTGTGAAAAAGTTTCGCAATGAGAACAATCATCTAAAAXTGGCTGTAACCTAGGTCAGGCGCGGTTGCTC  
ATGCCGTGAATCCCACCACCTTTGGGAGGCCGAGGCAATTGGATCACCTGAGGTGAGGATTTTGAGACCAGCTTGA  
CCAACATGGTGGAAATCCCATCTCTACTAAAAATACAAAAATTAGCCGGGTGTGGTGGCACACCCCTGTAATCCC  
ACCTACTCAGGAGGCTGAGGCAGGAAAAATCCCTTGAACCCAGGAGGCAAGGTTGCATTGAGCCGAAATAACACC  
ACTGCACTCCAGCCTGGAGCATAGAGTGAGACCCCATCTCAAAAAAAGAGCAGCTGTGACAAATGCCTGTATTGA  
ATTGCAGGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAGGGCTGCCCAAAAGGAACTAAAAGGGATCCA  
GCTTTGAATTTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAAGGAAGCCATCCACT  
TCTGATGATTCTGACTCTAATTTTGAGAAAAATTGTTTCGAAAGCAGTCACAAGCAAGGTGAGTGTGATCCTAGT  
CAGTCCTTTTGCTGTAGATGTTCTGAAACACGTAACCTAAGCCATTGTTCTTAAAAATTTGGCATATCTTTAAGAA  
AATTAACCTCTCATATTCTGTAGCTTTTACTGTACATATTAGTTTAAACAAAGTTAAATATGCCACTTATTGG  
CCAATGGAAGAGTTGGCCCTTAGATCTGCTTCTTATTACTTGGTAGAAAAATAGAAAACCTCCTTGAATATAGTGTCT  
TGATACATTTTTTACATTACAATTATGTTGTCAGATTTACAATGTGCAAGTTACCTGGGCTTTTCTCTTTTAGA  
AATCCAAGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGG  
CAAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAAAATGTGAGGCGATTATTTAAG  
TAATTATCTTACCAAGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTTTAACTTCTCCCCCTGGAATTTAGTT  
TGGGGAAGGTGTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTTTTATAACTGT  
ATAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTGCTTGTCTGTGTTTTGAGTCTGCTCTTTTTGTCTT  
TAAACCTGATTTTTAAGTTCTCTGAACTGTAGAAATAGCTATCTGATCACTTCAGCGTAAAGCAGTGTGTTTA  
TTAACCATCCACTAAGCTAAAACCTAGAGCAGTTTGATTTAAAGTGTCACTCTTCCCTCCTTTTCTACTTTCAGTA  
GATATGAGATAGAGCATAAATTATCTGTTTTATCTTAGTTTTATACATAATTTACCATCAGATAGAACTTTATGGT  
TCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTTCTTTAAGCAATGAGAAATGTGCTCATG  
TTCTTCATCTTCTCAAAATCATCAGAGGCCGAAGAAAAACACTTTGGCTGTGTCTATAACTTGACACAGTCAATAG  
AATGAAGAAAATTAGAGTAGTTATGTGATTATTTCACTCTTGACCTGTCCCCTCTGGCTGCCCTGTAGTCTGAA  
TCTCCCAAAGAGAGAAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGGACAACATTTGATCCAAGATC  
TTAAATGTTATATTGATAACCATGTCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT  
TGTAACCTTTTGTTAAGACCTGTCTACATTGTTATATGTGTGACTTGAGTAATGTTATCAACGTTTTTGTAAT  
ATTACTATGTTTTTCTATTAGCTAAATCCACAAATTTGTACTTTAATAAAATGTTCTAAACATTGAA

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**FIGURE 102**

TAGCTGGATTCCAGCCATTGCTGCGAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCGCGTGTCCCT  
AGGATGGTGATCCGTGTATATATTGCATCTTCCCTCTGGCTCTACAGCGATTAAAGAAGAAACAACAAGATGTGCTT  
GGTTTCCTAGAAAGCAACAAAATAGGATTTGAAGAAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG  
AGAGAAAAATGTACCTGAAAAATAGTCGACCAGCCACAGGTACCCCTGCCACCTCAGATTTTCAATGAAAGCCAG  
TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAAATATGCAGTGATGCCTTCTTAGGCTTGACAGCC  
CCACCTGGTTCAAAGGAAGCAGAAGTGCAGCAAGCAAGCATGACACCTTAAAGCACTGTGCTTTAAGCATCC  
TGAAAAATGAGTCTCCATTGCTTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAAGAAATAGGCTTAATGTTGA  
AATAATAGATTAGTTGGGTTTTACATGCAAAACATTCAAAATGAATACAAAATTTAAATTTGAACATTATGGTGA  
TTATGGTGAGGAGAATGGGATATTAACATAAAATATATTAATAAGTAGATATCGTAGAAATAGTGTTGTACCT  
GCCAAGCCATCCGTATACACCAATGATTTTACAAAGAAAAACACCCCTCCCTCCTTCTGCCATTACTATGGCAAC  
TTAAGTGTATCTGCAGCTCTACATTAAAAAGGAGAAAGAGAAAAATAACCTGTCTCTCATTCCTAAGTTGCCCTATT  
AATTTTCATGAACAAGAATATGTACCTTTTGTATGCTATATTACTGCGATTAAAAAAGTCTTTCGAGGTAATGTT  
TATGTATAGTTAAACGTTGTAAATTTCTTATCGTAATTATAACATTCCCATTCTTTGTAGATGAAACTCTACATAT  
GAACCCAGATTTTCTGAGCTTCTAAATGTAGCCTTTCATTGCACATTTTCAGTGATCAGAATAGATATCCTTTTA  
CACGCACAAAAGCAATAGATTCAATCAGTGGACAAGTTCCCTTGTTTAACTACACAGCTATGATGGAATCATATAT  
CCAAGTTCCCTTGCCCTCAGTGAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAATGCAATC  
TCTAGCAAAGAGATTAGACTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCCAAGATTGGTTCCCT  
TGAGTTTTTGTGTTAAACAACACTTAGTAGTTTTTGCCCGTTTAAACAACACTCACAATCGTAAATGCTACTATTCCCT  
AAGATATCTTACCTTTTTATTTCAGTTTAGCCATGTATTGTATGAGTGATTAGTCTAAGCAGTGAGAATCTTTT  
CTATGCCCTTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAGGGCAACTTTTAAATATTAAGCCTGAAGACT  
TCTAAAAGACAAGAACATGGCCTAAATAACCAACATAGATTTACATAGTAAGTTTCACTACTACCTTTATTACCA  
AAAGCAAAACACCTCTTACTTTTAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTTACTTTTTGCCAAAA  
TCAACATATAATGAAGAGATGCCTTTGTTGATGAGATTCAAACTTGATGCTATGCTTTTAAATAAACTCAGTAC  
TTTTAGAACATAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 103**

MVIRVYIASSSGSTAIIKKKQDVLGFLEANKIGFEEKDIAANEENRKMRENVPENSRPATGYPLPPQIFNESQY  
RGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA

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FIGURE 104

GCCGCGCGCGGCTCTGGGCACTCAGCATCGTTTCTTTCTCCGCTGGAGCAGCTATGCGCGGCGGTGAAGACCCCT  
GAAACCCCAAGCGCAGGTTGGCCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGCGGGTCTGCAGGA  
CGTGCTAAGGACCAACTGGGGCCCAAGGGCACCATTGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTAC  
TAAAGACGGCAATGTGCTGCTTCCAGAAATGCAAAATCAACACCCCAACAGCTTCTTAATAGCAAAAGGTAGCAAC  
AGCCCAAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA  
TCTCTACATTTCTGAAGGCCCTTCATCTAGATAATCACTGAAGGATTTGAAGCTGCAAAAGGAAAAGGCCCTTCA  
GTTTGTGGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTATAGATGTGGCCGCAACATCTCTTCG  
TACTAAAGTTTCACTGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA  
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAACATAAAATCTGAAACTGATACAAGCTTAAT  
CAGAGGGCTGTGTTTGGACCCAGGAGCAGGCATCTCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC  
TTGTAACGTGTCTATTAGAGTATGAGAAAAACAGAAGTGAATTCCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA  
AAAACCTCGTGAAAGCTGAAAAGAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAAGTGAAGAGGAAAGCTG  
TGCGGATTTCAGATAAAGGATTGTGTTTATTAATCAAAGGGAATTGACCCCTTTTCTTAGATGCTCTTTCAAA  
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGGTAGC  
CCTGAATTCCTTTGACGACCTAAGTCTGACTGCTTGGGACATGCAGGACTTGTATATAGTATACATTGGGAGA  
AGAGAAGTTACCTTTATTGAGAAATGTAAACACCTCGTTCTGTACATTATTGATCAAAGGACCAAAATAGCA  
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT  
GGTTCAGGTGCTGGTGGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAACATAAGCCAGTGTAAAGGGCAG  
GGCACAGCTTGGAGTCCAAGCATTGTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT  
TGACCTTCAGGAAACATTAGTTAAAAATCAAGCAGAACATTAGAATCAGGTGAGCTTGTGGGTGTGGACCTGAA  
CACAGGTGAGCCAATGGTGGCAGCAGAGTAGGCGTATGGGATAACTATTGTGTAAGAAACAGCTTCTTCACTC  
CTGCACTGTGATTGCCACCAACATTTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTCTCTGAAAGGTG  
AATTGAAGCTTCTCTGTATCTGAATCTTGAAGACTGCAAAAGTATCCTGAGGATTACAGCTGTGGAATTTTTGT  
CCAAGCTTCAAAATAATTTTGAAGAAATTTTCCCATATGAAAAAAGGAGAGAACACTGGCATCTGTTGAAATTTG  
GAAGTTCTGAAATATAGTATTTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA  
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATCCATGTTAGATAAGCATATGTTACTTACCTTGTATTATA  
AATATTTCTGAAAAGCAAATTTAATGGTTAATTTTATGTGGACGTATGTTAAATATCCAACTACCCATTG  
TTAAGCATTTGGTTTTAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAATATTGAAAGCATCCCTGTT  
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAAATGCT  
CCCCCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA  
GGGCAAGAACAGGCGAGGTTAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG  
AGATGTAGGCCAACTGATTTTCAAGCTTCTGAACCTTAAGCAGAAATATTCATCGCAAAAGTCTCTACGCTCATAT  
TTTTTCACCCCAAATACGTTTTCCACGAGTATTATATATAGTTGGTCTATCTCTGCAGTCCTTGAAGGTGAAGT  
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA  
CCTCAAAAAAA

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**FIGURE 105**

MAAVKTLNPKAEVARAQALAVNISAAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS  
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLLID  
VARTSLRTKVHAELADVLTEAVVDSILAIAKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARGHPDMKKRV  
EDAYILTCNVLSLEYEKEVEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELEKRVCGDSKGFVVINQKIDPF  
SLDALSKEGIVALRRARRRNMERLTLACGGVALNSFDDLSPDCLGHAGLVVEYTLGEEKFTFIEKCNNPRSVTLL  
IKGPNKHHTLTQIKDAVRDGLRAVKNAIDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV  
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCVTIATNILLVDEIMRAG  
MSSLKG

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FIGURE 106A

GGCACGAGCGGCGGAGGCAGTGTCTCCCGTTCGCGGTGGAGGTCGGTCTCGCTCAGAGCTGCTGGGCGCAGTTTCT  
 CCGCCTGCTGCTTCGGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCGCGCAGTTCTCGGTGGCGCTCCCGCTCC  
 TTTCAGTCTCCACGGACTGCGCCCTCGTCTTCTACTTGACCGCTCCGGTCTCCGCGCCCTCTGCGGCGCTTCC  
 GTTGGGCGGATTCGCGCCGCTTCCCTCGTCTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG  
 CTAGGCCAGATTATGATGCATCTATTACAGAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT  
 TTTCAGGCTCGATGATTTTGGAAATACCATTAGAGCTTAAGACACACCTCGAGCTTCATTTCACACACCTGTCTCTCA  
 TACCTTGCAGAAAGTGACCTTTTAAACACTCCTTTGTCTTGGATTACTTAAAGCTTCCCGAGAATAACATTTGGCCA  
 CCAACAGAGTAGCCAAATTTATAAGGAAAAATGATTCCCAATGGATATTGATGTTTGAGGATGAAAAATTTTATT  
 GAGTCTTCTGTTGCCAAATTAATAGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTGCAGCTTCAGGTCTGTGGC  
 CATGAATGTTAGCACACAGAGCAGTGCTAGCTTGTGTCAGTCCCTATTATTTAGAAATCTTTAATAGTGATAGT  
 GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTGGAAGTCTTGTGGAATTTATGCC  
 TACACTGCTCAGTTGAAAGCAGATAAGGAATTTGGTAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT  
 CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAAATGGATGTTACACAGTGCATCTTACCAGAAATTTT  
 GCAAGTTGATGGGAGACTCCCGTTTGTGTAATAGGTTGATGCTTATATTACAGGACATTTGTTACAAATTTCTC  
 GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGGAAGATAATGTTGCTTGCCACG  
 AATGGCAAAATATATACAAAGGTAATCAACTGGGTGCAGCTAGCATCTGGGGAAGATGGAGACAGCTTGGGAAGAG  
 CTGATGGAAGAGGTTCAAACCTTGTACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTTACTAGATGGACAG  
 GCTGAGGTGTTTGGCAGTGATGATGACCACATTCAGTTTGTGCAGAAAAGCCACCCAGCTGAGAATGGCCATAAG  
 CAGATAAGTACAGTTCAACTGGATGTCTCTTCTTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAA  
 ATCGTTGCTTCAGAAAAGACTTCAAATAACACTTACTTGTGCTGGCTGTGCTGGATGGTATATCTGTGTCATT  
 TTTCTTCTTGGGAGAAACAGCCACAGAGCTCACCACCAAGTACTCCAAAACCTAAGTAAGAGTTTAAAGCTTTGAG  
 ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGTCAGTACGCACGATCTGGTCTGGGAACAGCAGAG  
 ATGAATGGCAAACTCATAGTGTCAAGGTGGCTATAACAGAGAGGAATGTCTTCGAAGCTCGAATGCTATATATCCA  
 CATACAGATCATGTGCTTCTTCTGTCCCATGAGAACACCAAGAGCCGATTTCAAATGGCTGTACTCATGGGC  
 CAGCTCTATGTGGTAGGTGGATCAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGATGATTCAAACATA  
 GATGACTGGATTCTGTTCAGAAATTGAGAATCAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA  
 TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTTGATGATTTTGTATCTGTAACAAAG  
 TTGTGGACAAGCTGTGCCCTCTTAACATTGCGAGACACAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC  
 ATAATCGGAGGTGCAGAAATCTTGAATTTGTCTGAACACAGTAGAACGATACAACTCTGAAAAATAATCTGGACT  
 TTAATTGCCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTTCTTAATGGAAAACCTGTTTGTATGTGGT  
 GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAATGTATGATCCCACTAGAAATGAATGGGAAGATGAGGGA  
 AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCAATTTATGCAATGGGAGGATTGAT  
 GGCAATGAATTTCTGAATACGGTGGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCTATACAAAGATTTTC  
 CAGTTTAAACAAATTTAAGACCCCTCTCAAACCTAACAGGCTTAGTGATGTAATTTGTTAGCAGAGGTACACTTG  
 TGAATAAGAGGGTGGGTGGGTATAGATGTTGCTAACGCAACACAAAGCTTTTGCATATTGTCATATTAATAAC  
 ATGCTGTACATACTTTTTGGGTTTATTTGGAAGGAATGCAAAGATGAAGGTCTGTTTGTGTACTTTTAAGACT  
 TTGGTTATTTTACTTTTTGGAAGAAGATAAACCAAGAAATTTGATTGGGCACATCATTTCAAGAAGTCCCCCTCTCT  
 CCACATTTGTTTGGCAATTTGACATTAATGACTCTTCCCTCAAATGTGACTATGTTGGGTAAAGAGGGGTAGGG  
 TTTAAAGATGTAGACAGTTGGGTTTTTAAAGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT  
 ATTTAAATAGATGACATTTGACTATTTTGTTTTTATTAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT  
 ATGATTCGCTTTGTTTAACTTTTTATATCTCAGCAGAGTGTCTTACCAATGAAGTAAAAATGTGGCAGCTGGA  
 GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAACTCTGAGTGCAAACTTCAG  
 AGTTCTTGCCCTTGGCTGCAGTTTTTTTCTTCAAGAAATGCAGTACTAACATTTATTGAGTGGAGTTACTGAACA  
 GTAACATAGCTGTGATTTTGGTATTTGAAACACTGGTTTTAAATTTTGAATTTGTTGAGGTATGTTTTATCAG  
 AGCAAGACATTAATAGCAGTAAAAAATGGTGTTTATCTTCTATATATCTCTGTTTATTATTACAAAAACA  
 GTCTTAATAGCAGCCCTCAATTTGTGAAAAAATTTACTTTAAACTACATAGGTTTGAATGTCAGGTTTATCAG  
 AACTATTTTGTGTCAGTTTCTGTGTCATATGGATAAATATTTGGTGGGATGACTTGGTGTCTAAATGTGTAGT  
 GCTACACACCTAACTTATGGGGCCAAATAGCATGTCTTAATGCTTGTGCTGATTTTAAACACATTAAGGTACT

**FIGURE 106B**

TTGCAGGAAATCCTTGCACCATGGGATTAATATCCAATTGCTGCTTGTACACTCATTCACTACTAAAAGTTTGA  
GAAATTTTTTTTCCAGTAATGAGCTTAAGAAATTTGTGGAAAATAACTCACCTGGCATCTTACATCTGAAATAA  
GGAATGATATAAGGTTTTTTTTCTCACAGAAGATGAAGCACACAGGAACCTAATGGGCCAACTGGGATGAGGTG  
ACTATTCTGAGATGACTATTCAGTGGCTAACTTGGGTTAGGAAGAAAAATAATTAGGTATTTTCTCCAAATGTTCA  
CTGGTACTCTGCCACTTTATTTCTCTCATCTGTTACACAAAGAACCACCAGGAAAGCAAATCAGTTTGGTTGGTA  
ACTCTGTAATTCCTAACTATCACTGGTTTGGTTCTGGACTAAAACCTACATTGACAGATTGAAITTCCTAATATG  
ATGACTGTTTTTAATATGGATCTGTATGTGTTCTATTACGCCCAAGGAAATAAAATTTTAGTTGAGGATTCAAAA  
AAAAAAAAAAAA

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**FIGURE 107**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF  
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRL  
NKVDAYIQEHLQISEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY  
SADHKLLDGNLLDGOAEVFGSDDDHQFVQKKPPRENGHKQISSSTGCLSSPNATVQSPKHEWKIVASEKTSNN  
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEIMGKLIAGG  
YNREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVELR  
TNRNAGVCALNGKLYIVGGSPPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSACVCELGGYLYIIGGAESWNC  
LNTVERYPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAG  
IATVGNIIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIFQF



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**FIGURE 108A**

CGAGACGGAAGCGGGCTGGGAGGCGTCGGCGCGGACGCGCAGCTGGTGACGTGCGAGGGGGTTCGGCGCGAGCG  
TCGGCGCGGCGCGGAGGCAGTGTCTCCCCTCGCGCGTGGAGGTGCGTGCCTCAGAGCTGCTGGGCGAGTTTCT  
CCGCTGCTGCTTCGGGCGCGCTGTATCGGCGAGCGAGCGAGTCCCGCGAGTTCTCGGTGGCGCTCCCCCTCC  
TTTCAGTCTCCACGGACTGGCCCCCTGCTCTTACTTGCACCTCCGCTTCCGCGCCCTTCGCGCGCTTTC  
GTTGGGCGGATTCCGCGCCCTTCTCTGCTTCCATCGAAGCTCAGAAAGTTGAAGTTTCCATCTCTTCAGAG  
ATGAACGACGATTATGATGCATATTACACAGAAGAAATTCGTGCTCTAGCTTTTAAGGACTTGATTACATCAT  
TTTCAAGCTGATAGTTTGTGAATCACCATTAGAGCTTAAGACACACCTCGCTTCATTCAACCCAGCTGCTTCA  
TACCCTGACGGAAGTGACACTTTTAAACACTCCTTTGTCTTGGATTACTTAAGAGTTCCACAGAAATACATTTGCCA  
CCAACGAGTAGCCAAATTTATTAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAAATTTTATT  
GAGTCTTCTGTTGCCAAATTAATAGCCCTGAGGAAAAGTGCCAGTCTCTGTGATGTTTCGACTTCAGCTCTGTGGC  
CATGAAATGTTAGCACACAGAGCAGTGTCTAGCTTGTGTCAGTCCCTATTATTGAAATCTTTAATAGTGATAGT  
GATCCTCATGGAATTTCTACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATATGCC  
TACACTGCTCAGTTGAAGCAGATAGGAAATTTGTAAGAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT  
CGAGTAAACGAGGTTTGTGGTGAATTTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCAGAAATTTT  
GCAAGTTGTATGGGAGACTCCCGTTTGTGAATAAGGTTGATGCTTATATTAGGAGCAATTTGTTACAAATTTCT  
GAAGGAGGAGGATTTCTTAAGCTTCAACGGCTAAAGTTGGAGGTAAGCTTGAAGATAAGTTGTTTCTGCCGAGC  
AATGGCAAATTAATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAAATGGAGACAGTCTGGAAGAG  
CTGATGGAAGAGGTTCAAACTTGTACTACTCAGCTGATCACAAGCTGCTTGTATGGGAACCTCTAGATGACACAG  
GATGAGGTGTTTGGCAGTGATGATGACACCATTCAGTTTGTGAGGTAAGCTTGAAGATAAGTTGTTTCTGCCGAGC  
CAGATAAGTAGCAGTTCAACTGGATGTCTCTTCTCCAATGCTACAGTACAAGCCCTAAGCATGAGTGGAAA  
ATCGTTGCTTCAGAAAAGACTCAAAATAACACTTACTTGTGCTGGCTGTGCTGGATGGTATATTCTGTGTCATT  
TTTCTTCATGGGAGAAAACAGCCACAGAGCTCACCAACAAGTACTCCAAACTAAGTAAGAGTTTAAGCTTTGAG  
ATGCAACAAGATGAGCTTAATCGAAAAGCCCATGTCTCCTATGCAGTAGCAGCATCTGGTCTGGGAAACAGCAGAG  
ATGAATGGCAAATCATAGTCTCAGGTGGCTATAACAGAGAGGAATGCTTTCGAACAGCTGCAATGCTATAATCCA  
CATACAGACTACTGGTCTTTCTGTCTCCCATGAGAACACCAAGAGCCCGATTCAAAATGGCTGTACTCATGGGC  
CAGCTCTATGTGGTAGGTGGATCAAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA  
GATGACTGGATTCTGTTCCAGAATTGAGAACTAACCCTTGTATGCAGGAGTGTGTGCTCTGAATGGAAGTTA  
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTTGATGATATTGATCCTGTAAACAAAG  
TTGTGGACAAGCTGTGCCCTCTTAACATTGCGAGACACCAAGCTGCGAGTCTGTGAGCTTGGTGGTTATTGTAT  
ATAATCGGAGGTGCAAGATCTTGGAATTTGCTGAAACAGTAGAAGCATACAATCCTGAAAAATATACCTGGAGCT  
TTAATTTGACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAGAACTGTTTGTATGTGGT  
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAATGTATGATCCAACAGAAATGGAATGGAAGATGATGGGA  
AATATGACTTCACCAAGGACCAATGCTGGGATGCAACTGTAGGGAACACCAATTTATGCAGTGGGAGGATTTCGAT  
GGCAATGAATTTCTGAATACGGGTGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCTATACAAGATTTTCT  
CAGTTTAAACAAATTTAAGCCCTCTCAAACTAACAGGCTTAGTGATGTGAATTTATGGTATGATAGGTTACACTTG  
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTGCATATTGCATACTATTAAAC  
ATGCTGTACATACTTTTGGGTTTTATTGGAAGGAATGCAAGATGAAGGTCTGTTTGTGTACTTTTAAGACT  
TTGGTATTATTTACTTTTGGAAAAGAAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAATCCCTCTCT  
CCACATTTGTTTTGCCAATTTGCACATTAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG  
TTTAAAGATGTAGACAGTTGGGTTTTTAAAGGGCCCTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT  
ATTTAAATAGATGACATGACTATTTTGTGTTTTTAAAGGAAGCTTACATGCTTACCAATATTTAATCTTT  
ATGATTGCTCTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTTGAAGTAAATGTGGCAGGCTGGA  
GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGACAGATAGGGGTCTGTCTTTTAACTCTGAGTGCAAACTTCAG  
AGTTCTTGCCCTTGGCTGCAGTTTTTTTCTTCAAGAATGCAGTACTAACATTTATTGAGTGGAGTTACTGAACA  
GTAACATAGCTGTGATTTTGGTATTGTAACACTGGTTTTAAATATTGACTTTGTGAGGGTATGTTTTATAT  
AGCAAGACATTATAGCAGAAAAATGGTGTATTCTCTATATAATTCCGTGTTTTATTATTAAACAAACA  
GCTCTAAATGACGCCCTCAATTTGTTGAAAAAATTTCAATTAACATACATTAGGTTGTGAATGCAGGTTTTATCAG  
AACTATGTTTTGTTCAGTTTATCTGTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT

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**FIGURE 108B**

GCTACACACCTAACTTATGGGGCCAAAATAGCATGTCCTAATGCTTGCTGCTGATTTAAACACATTAAAGGTACT  
TTGCAGG

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**FIGURE 109**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRVLAACCSPYLFEIFNSDSDPHGISHVKF  
 DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLL  
 NKVDAYIQEHLLQISEEEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLTY  
 SADHKLLDGNLLDGGAEVFGSDDDDHIQFVQKKPPRENGHKQISSSTGCLSSPNATVQSPKHEWKIVASEKTSNN  
 TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIKPMSPMQYARSGLGTAEIMGKLIAGG  
 YNREECLRTVECYNPHTDHWSEFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVELR  
 TNRCNAGVCALNGKLYIVGGSDDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNC  
 LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEYMDPTRNEWKMMGNMTSPRSNAG  
 IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIQF

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FIGURE 110

GAGTTCACGAGTCCGCGAGCTGCCGTCCGGCTCCGCGGGGGGGCGGGCCGGGACCCCGGGGGCGGAGGAGCG  
CTCCTCGCTTCTCTCCTTCCCCCTGCGCGACTCCGCGGACCTCCCGCGGGCCGCGCCGCTGCACTCGCCCT  
CTCCTCTCGCCCCCGGCAAACTTTCGGCCCTCCCGCCCTCGCCCGTATTTCGTCGTGGCTCAAGCCCGGCC  
ACGCCGCCCAAGGGCTCTCCGACCTCCCGCTCGCGCTCCGGCACTGCGGGATCCAGAAACATGTCGACC  
ACACTTGTGTCCGCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACTCAACTGAAC  
AACATGCTGGACAAGAGGGGTGGGGACGCTGTGGCGCGCGCCCGAGCTCGGGCTTCGCGCGGGATTCTCT  
CGACGGCACTCGGCCAGCAACTTGATGCACTCGCCACCCCGCGCCAGCCCGCGAGCTGCTCGCCAAAGTTC  
CCGGGCGCCGTAAACGCGAGCTGCGGCGCGCGCGGGCGGGTCCGACCTCTACGGACCCCTTAAGGAG  
CCGTGCGGGGGCGCGCGACAGCCCTGCTCAACAAGGAGAAACAAATCCGGGACCGCTCGTTTAGCGAGAACGGC  
GATCGAGCGAGCACTCTTGACCTTGACAGCAGCAGAGAAGGGGGCGCGGCTCCAGATCAACTCCACGCGC  
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCCGCGCAT  
GGCTTCCAGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGACCTTTCATACCATC  
GGCTTCTGCCCCATGGGCGCGCTGCCACTTCATCCACAACGCGGACGAGCGCGGGCCGCGCCGTGCGGGGGC  
GCCCTCCGGGACCTGCGTGCTTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCGCGGGAGCCGCGGCCAAG  
TTGACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCGGGCGGCTCGAGTCGCCGCTG  
CTGCTCGACAGCCCCACGTGCGCGACGCGCGCGCCCTCTGCTCTTCGGCTCTGCTCTCTCTCTCCGCC  
TCTCTCTGTCTCGGCTCCGCGGCTCCACGCCCTCGGGCGCCCGACATGCTGCGCTCCGCGCGCGCGCG  
GCTGCGGCGCTCTGTGTACGGCACCGGGGGCGCGGAGACCTGCTGCGCGCGGGGGCCCGTGC GCGGCTG  
TCGTGCGCTGTGCGCAACAACGCCCTTCGCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCGCTCGCCATC  
CAGACCCAACTTTGCGCGCTGGCGCGCGCGGCTACTACCGAGTCAGCAGCAGCAGCAGCAGCAGGCGCTG  
GCGCCCGCGCGAGCGCGCGCGCGCGCCAGCGGACCTCCCGCGGGGCGCGCACCTCTCTCGCGCGCC  
TTCAGCTTCCAGCTGCGCGCGCCCTGTCCGACTCGCCGCTGTTCGACGCGCCCCCAGCCCGCGGACTCGCTG  
TCGGACCGCGACGTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC  
CCTGCGCGCGCTGCCAATCTTACGCCCTCTCCATCTCGACGACTGAGCGCAAGAGGGCGCGAGTGAAGAGG  
AAGGGAAGCGGTTAGAGATGTGGAGGACACCCCTCGCCATCTCGCCCTTGTGGGGGACGGGAGTGGGGG  
GGTGACATGGGCGCTAGCGAGCTGCAAGCCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCC  
ACCCCTCCTTTTTCGGTTTCTCTGTCTTTTTTTTTTATTTTATTACGAAGTTTCATTTCTTTTGAAGAAAA  
AAGTCGAACTTTTCTGTTGAACAAAATATTCACAAAGGGCAGTTGTGATACGAATAGAAACAAAAA  
AAACACTTAAACTTTGTTAGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA  
ACCACCATTCATCTCTTCACTTGAACAGCATTAGTTAAGTCAGATGTGGGAACCTTCTCTTGAAGAAGTTC  
CTAATTGTGTCTCAGACCGGTGTAACAAACAGCCAGCGCGCCACCTTGCTAAACCTTATAAGCTTTTTAAATCC  
AATATATTCGCAAGAATATGCTTGATAGTTAGCCCTCAGCCATAGGTGTTTTTGTGTTTTTAACAGAAATTA  
TATATGCTGGGGGTGAAAAACCTTGCATTCCAAAGGTCCTACTGGTTACTTGGTTTCATTGCCACCCTTA  
GTGGATGTTCAAGTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

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**FIGURE 111**

MSTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHAPAPSPGSCS  
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQKGGGGSQIN  
STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRLTRHPKYKTEL CRTFHTIGFCPYGPRCHFIHNADERRPAP  
SGGASGDLRAFGT RDALHLGFPREPRPKLHHSLSFSGFSPGHHQPPGGLESPLLLDSPTSRTPPPPCSSASSCS  
SSASSCSSASAASTPSGAPTCCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP  
LAIQTHNFAAVAAAAYYRSQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSLPRRLSDSPVFDAPPSP  
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

## FIGURE 112A

CAGATTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCTT  
GATGGATCTTGCCAGGCCCCNTCNTATTTTTNTTAAAGTTATTTATTAACACACACACCTTGCAAAAGAAAA  
GGGAAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCATCGCTCAGAGCCACAAAGCTGATTTCTAAACAGCCCTT  
TCCTTGGTTCCTCTCTCTGCCCCACTTTTTTAAAAATCCAGACTGTAAAAACACATCTACTGACACTCACTT  
TACTTTTAAAAAAGAAGAGAAAAAGTTAAAGCGTTACAGAAGCTTTCTCTCGGAAACTATAAACTGAAAAAAAT  
CCATAAAGAGTTAAATCCTGGCGGGTGTGGGGTGGCGGGGGCGGGGGGAGGGGGCGCGGAGTGGAGATTGGC  
TCTCTGAGGTGGTGTAGGGGCCCTGTGACAGCTTTGAGACTTTACAGACTGATTTTGGGGTCAITTTCTGTCTAAC  
TGTGAGGACCCCCACCCCCAAACCCAGCCACCAACACAACCATCGTAGAAGGGAACACAACACAGAGGGTCTT  
TTTTCAATTTTTTAAAAAATCGGTTTGGTTGTGTTTTTGTTTTCCATGGGGGAGCTTTAAACCTCAITATTGCAA  
CACTAGTTCCATTTTTTGCCAGGGTTCGAATAACACGGCATCATAAAGGCCAACGCAACCCACAGTTCTCAAGACA  
TTTACCACGGTCACTACATCCGGCAGCGGGGTGGCCCTAGCTCTGTCTGCCCGCCCGCCCTTTCTCCCGCCCG  
CCCCGGAGCTCAGCCGATTTCTGAGGCTCCAACCTTACCCACTCCCTCCCCGGGCGCGCGCGCGCGCTTCC  
CCCAATTTCTACTCCCTCGAGGAGAGCCAGGTGGCAATCCAAACCACTCGCAATCTATTTTGGCAAAATCAC  
TCACAAAGATCTCCCTTTCCGCGCCCGCGCCGCTCTCCCGCGCGGGTCCCTCAGCCACGGCCACAAGTGCC  
CTTCTCTCTCTGAGTCTTGACATAAGGAACCGGGGCTGGGGCTCTGTTCGTCTTTCTCTCGCCCAAGGTAA  
GGTCTCGGGAACTGTGAAGCTTGGCTCCACTACGCTCAGGCCGAGTTCCTTTTACAGAGCTTGCACCATG  
GGAAAAATAAAATAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAAACAGAGTACGACGCGCCCA  
AATACAAACACCCGAGCGGCCAGAAATCCCGCCACCTTTCTCGTTCTCCAGGCTGTCTGTGAGGTTCCCTGA  
TGCCCCCGGCACACTGAAAGGCGATCGCAGGTGCGAGTGGCGACCTTTTCCACCCCAACCCGAAGCCGTGTCC  
GCCATCAGTCTCTCTCTCGGGATGAGCAGGGAGAGCGCGCGGAGGTTCCCGACTCCCTCGACTACAACCAAGAA  
AGAATAATTTTCAAAGTGTTCACATCTCCCCGCCCAAGCTCCCAAAACACAGGGGCGAGGAAACCAAAACAC  
TCGGCTCTCGTTAGGAAGATCAGCGCTCTGAAGGAAATAGTAGACAGGATACTTCACTCTCATCTGGATTATGA  
CCAAAAAACAACAAACAAACCAAGAGTTTCGCTTGCAATTTTTCTTCCAAATCTCGGTTCCGGCTCGAAGGC  
AGGGAATCTAAAGAACCGGAGCCGATGGAAGAGAGCCAGCGGGGCGAGCGGCGAGCTCCCTTTTGGCTCT  
CCGGAGTCAACCGTTATTCGTCTGTGGCTCAAGCCCGGCCACGCCGCCCAAGGGCTCCTCCGACCTCCCGGCT  
GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACCACACTTCTGTCCGCTTCTACGATGTGCACTTCTTG  
TGCAAGACAGAGAAATCCCTGGCCAACTCAACCTGAACAACTGCTGGACAAGAGCGGTGGGGACGCTGTG  
GCCGCCGCCCGAGCTCGGGCTTCGGCGCGGGATTCCTCCGACGGCACTCGGCGAGCAACCTGCATGCACTCGCC  
CACCCCGCGCCAGCCCGCGAGCTGTCTGCCCAAGTTCCCGGGCGCGCTAACGGCAGCAGCTCGCGAGCGCG  
GCGGCGCGCGGTCCGACCTCTACCGCACCTTAAAGAGCCGCTCGGGGGCGCGGCACAGCCCTGCTCAACAAAG  
GAGAACAATTCGGGACCGCTCGTTTAGCGAGAAGCGGATCGCAGCAGCACTCTTGACACTTGACAGCAGAG  
CAGAAGGGGGCGCGGCTCCAGACTCAACTCCACGCGCTACAAGACCGAGCTGTGCGGCTTTGGCAGAGAGC  
GGCAGCTGCAAGTAGCGGAAAAAGTGCCAGTTTCGCGCATGGCTTCCACGAGCTGCGCAGCTGACTCGCCATCCG  
AAGTACAAGACCGAGCTGTGCGGCACCTTTCATACCATCGGCTTCTGCCCTATGGGCGCGGCTGCCACTTCATC  
CACAACCGCGGACGCGCGCGCTCCGCGCGTTCGGGGGCGGCTCCGCGGCACTGCGGTCTTTGGCAGCGCGAT  
GCGTTGACCTGGGCTTCCCGGGGAGCGCGGCCCAAGTTGACCCACAGCTCAGCTTCTCGGCTTCCGCTCG  
GGCCACCATCAGCCCGCGCGGCTCGAGTCGCCGCTGTGCTCGACAGCCCACTGCGCGCAGCGCGCGCGGCT  
CCCTCTGCTCTTGGGCTGTCTGCTCTCTCTCGGCTTCTGTGCTCTGCGCTCCGCGCTTCCAGCGCTTCCAGCGC  
TCGGGCGCCCGACATGCTGCGCTCCGCGCGCGCGCGGCTGCGCGCTGCTGTACGGCACCGGGGGCGCG  
GAGGACCTGTGCGCGCGGGGCGCCCGTGGCGGGCTGTCTGCTGGCCTCTGTGCGCCAAACACCGCTTTCGCTT  
GGTCCGAGCTCAGCAGCTCATCAGCCGCTCGCCATCAGACCAACAACCTTTGCGCGCTGGGCGCGCGCGGCT  
TACTACCGCAGTCAGCAGCAGCAGCAGCAGGCGCTGGCGCCCCCGCGCAGCGCGCGCGCGCGCGCGCGG  
ACCTCTCCCGCGGGGCGCGCCACCTCCCTCGCGCGCTTTCAGCTTCCAGCTGCGCGCGCGCTGTGCTGACTCG  
CCGCTGTCAGCGCGCGCGCGCGCTGCTGTCGAGCCGCGCAGCTACCTAAGCGGCTCCCTGAGC  
TCCGCGAGCTCAGCGGCTCTGAGTCTCCAGCTCGACCTGGCGCGCGCTGCAATCTTCAGCGGCTCTTC  
ATCTCCGACGACTGAGGCAAGAGGCGCCAGTAGGAGGAAGGGAAGCGGCTCAGAGATTGGAGGACACCC  
TCGCCATCTCGGCTTGTGGGGGCGCGGAGTAGGGGGGGTGACATGGGCGCTTAGGCAGACTGCAAGCCGAC  
GAGCACTTGACTCGAATCTGTGCGGGAGGGGCGCCCAACCCCTCCTTTTTCGGTTCTCTGTCTCTTTTTT

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**FIGURE 112B**

TTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAGTCGAACITTTTTCTGTTGAACAAAATTACACAA  
CAGGGCAGTTGTGATACGAATAGAACAAAAAGAAAAAAAACACTTAAACTTTGTTAGGACTCCGATGAGTTT  
GGGACTTCAGGAAAAATCAACCAGCACCAGCTACCAACCACCATTCCATCTCTTCACTTGAACAGCATTAG  
TTAAGTCCAGATGTGGGAACCCCTCTCTTGGGAAGAAGTTCCTAATTGTGTCTCAGACCCGGTGTAAACAAACCAGC  
CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG  
CCCTCAGCCCATAGGTGTTTTTTGTTTTTAACAGAATTATATATGTCTGGGGGTGAAAAAACCCCTTGCAATCCA  
AAGGTCATACCTGGTTACTTGGTTTCATTGCCACCCTTAGTGGATGTTGAGTTTGAACCACTTTTGCTGCTCC  
CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTGTAGCTGTTTTGAGTTG  
ATTGCAACCACTGCACCACAACCTCAATATGAAAACCTATTTAACTTATTATTATCTTGTGAAAAGTATACAATGA  
AAATTTTGTTCACTGTATTTATCAAGTATGATGAAAAGCAATAGATATATATTCTTTTATTATGTTAAATTA  
GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTCACAGTAATATATGCCTTTTGTAACTTCAC  
TGGTTATTTTATTGTAATGAGTACAAAATCTTAATTTAAGAGATTGTATGTAATATTTATTTTCATTAATTTCT  
TTCTTTGTTTACGTAAATTTTGAAAGATTGCAATGATTCTTGACAGAAATCGATCTTGATGCTGTGGAAGTAGTT  
TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACCTCAAAGAAAAAATGACCA  
CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACTTTATAAACTAGCAAAAAAGTGTTTGC  
TTATTCACCAGTTCTACTGTGACATACTCGAGTATAAAGACATGTAGCAATAACGGGGAGTGGGGGGGAGTCT  
CACAGTGCCTTTGGAAGGGCCCCGAACCTTGCTTTAAATCTTCCTCAACCAAAATAGTATTTTATTAGTGCTTGAGA  
GAATCTGAATGTAGGATGGGTTCACTGCACAAAAGGAAAAGATTTTACCACITTTTTATATAGATATAAAGT  
GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTTAATTACAGAAAATTCAAAACCTTG  
TACTATTTTTTTTTTCCATGTAGAAAGGCAGGAATGTCTCCTAAGCTTTCTTGACAGCAGATGAATGAGCGGTA  
GCTTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTGGAAGTACTTTGGACAGAAGTAGGTTTTT  
GAATGTAACAAGATAAGTCAACTTGAGTTGTAATATATTTTGGGGAATCAGTCACTACAAATGTGACTGTAAA  
CATGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTGGGAAAAAAGGTATTAACTGTAAAGAGCT  
TTCTTTTTAAACAGGAATGCTTAGCTTTCTAGCTTCCAGCTAACCAATGTCTGCCATTTCCCGAGTCTTGGCAT  
GGTGGGGGAGGACTTGGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTCGGTCTCTCAGCCCGTATATATTTT  
ATAAGCAAGTCTCTCTAATGAAGAAAGTAATTTATTGGACTGTCAAGGCCATTAGTT

**FIGURE 113**

MEESQGERAGSLPFCLESPVIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTLLSAFYDVDFLCKTEKSLA  
NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHAPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY  
GTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLOQQQKGGGGSQINSTRYKTELCRPFEEESGTCKYGEK  
CQFAHGFHELRLTRHPKYKTELCTRFHTIGFCPYGPRCHF IHNADERRPAPSGGASGDLRAFTRDALHLGFPR  
EPRPKLHHSLSFSGFP SGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSASSCSSASAASTPSGAPTCCA  
SAAAAAAAAALLYGTGAEDLLAPGAPCAACSSASCANNAFAGPELSSLITPLAIQTHNFAAVAAAAYYRSQQQQ  
QQQGLAPPAQPPAPPSATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSPPDLSLDRDSYLSGSLSSGSLSGSE  
SPSLDPGRRLPIFSRLSISDD



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FIGURE 114

GAGTTCACGAGCTCCGCGAGCTGCCGTGCGCTCCGCGGGGGGGCGGGCCGGGACACCCGGGGCGGAGGAGCG  
CTCCTCGCTTCTCTCCTTCCCCCTGCCGACTCCGCGGACCCTCCGCGGGCCCGCGCGCTGCACTCGCCCT  
CTCCTCTCGCCCCCGGCAAACTTTCGGCCCCCTCCCGCCCCCTCGCCCGTTATTCTGCTGTGGCTCAAGCCCGGCC  
ACGCGCCCCCAAGGGCTCTCCCGACCTCCCGGCTGCCGTCCGGCACTGCGGGATCCAGAAACATGTCGACC  
ACACTTCTGTGCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACTCAACCTGAAC  
AACATGCTGGACAAGAAGGCGGTGGGGAGCGCTGTGGCCGCGGCCCGCAGCTCGGGCTTCGCGCCGGGATTCTCT  
CGACGCGACTCGGCCAGCAAACTTGCATGCACTCGCCACACCCCGGCCAGCCCCGCGAGCTGCTCGCCAAAGTTT  
CCGGGCGCCGCTAACCGCAGCAGCTGCGGCAGCGCGCGGCCGGGGTCCGACCTCTACGGCACCTTAAGGAG  
CCGTGCGGGGGCGCGCGCAGCCCTGTCTAACAGGAGAACAATTCGGGACCGCTCGTTTAGCGAGAACGGC  
GATCGCAGCCAGCACTCTTGCACCTTGCAGCAGCAGAGAAGGGGGCGCGGCTCCAGATCAACTCCACGCGC  
TACAAGACCAGCTGTGCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCAGAAAGTGCCAGTTTCGCGCAT  
GGCTTCCACGAGCTGCGCAGCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCGGCACCTTTCATACCATC  
GGCTTCTGCCCCATGGGCCGCGCTGCCACTTCATCCACAACGCGGACGAGCGCGGCCCGCGCCGTGCGGGGGC  
GCCCTCCGGGACCTGCGTGCCCTTTGGCAGCGCGATGCGTTGCACCTGGGCTTCCCGCGGAGCGCGGCCCAAG  
TTGACCACAGCCTCAGCTTCTCGGGCTTCCCGTTCGGGCCACCATCAGCCCCGGGGCGGCTCGAGTTCGCGCTG  
CTGCTCGACAGCCCCACGTGCGCAGCGCGCGCGCCCTCCTGCTCTTCGGCCTCGTCTGTCTCTCTCCGCC  
TCTCTCTGTTCTCGGCCCTCGCGGCCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGCGCGCGC  
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCGAGGACCTGCTGGCGCGGGGGCCCCGTGCGCGGCCCTG  
TCGTGCGCCTCGTGCGCCAACACGCTTTCGCCCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATC  
CAGACCACAACCTTTGCCCGCTGGCGCGCGCGCCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGCGCTG  
GGCGCCCCCGCGCAGCGCGCGCGCGGCCACCGGACCTTCCCGCGCGGGCGCGCACCTCTCGCGCGGCC  
TTCAGCTTCCAGCTGCCGCGCGCCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTG  
TCGGACCGCGCAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC  
CCTGGCGCGCGCTGCCAATCTTCAGCGCCTCTCCATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGG  
AAGGGAAGGCGGTTAGAGATGTTGAGGACACCCCTCGCCATCTCGCCCTTGTGCGGGCAGCGGAGTGCGGGG  
GGTGACATGGGCCCTAGGCAGACTGCAAGCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCC  
ACCCCTCCITTTTCGGTTTCTCTTGTCTTTTTTTTTTATTTTATTAACGAAGTTTCATTCTTTTGAAGCAAAA  
AAGTCGAACTTTTCTGTGTGAACAAAATATTCACAACAGGGCAGTTGTGATACGAATAGAAACAAAAA  
AAACACTTAAACTTTGTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA  
ACCACCAATCCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCCTTCTCTTGAAGAAGTT  
CTAATTGTGTCTCAGACCGGTGTAAACAACAGCCAGCGCCGACCTTGCTAAACCTATAAGCTTTTTAAATTC  
AATATATTCTGCCAAGATATGCTTGTATGTTAGCCCTCAGCCCATAGGTGTTTTTGTGTTTTTAACAGAATTA  
TATATGTCTGGGGGTGAAAAAACCCCTTGCAATCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCCTTA  
GTGGATGTTTCAAGTTTGAACCACTTTTGTCTGCTCCCTCTGGAAGCCTTTCGCGA

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**FIGURE 115**

MSTILLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS  
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQKGGGGSQIN  
STRYKTELCRPFEESGTCYGEKCQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAP  
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCS  
SSASSCSSASAASTPSGAPTCCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAPGPELSSLITP  
LAIQTHNFAAVAAAAYYRSQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSP  
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

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**FIGURE 116**

AAAAGAAAAAAAAGATTTTTTCTTCTCTTAATCGGAATCGTGATGGTGTGGATTATTTCAATGGTGGGGTT  
AATATAGCATGTTATCCTGTCTATCTTTTAAAGATTTCTGTATAAGACTGTTGAGCAGTTTTTAAATAGTGTAG  
GATAATATAAAAAGCAGATAGATGGCGCTATGTTTGATTCCCTACAACGAAATATCACCAGCTTTTTTTCATTCT  
TAACCTCTTTAAAGGATTCAAACGCAACTCAAATCTGTGCTGGACTTTAAAAAACAAATTCAGGACCAAAATTTTT  
CTCAGTGTGTGTGTTTTATTCCTTATAGGTGTAATGAGAGAAGACGTGTTTTTTTCTTCACCGATGCTCCATCCTC  
GTATTTCTTTTTCTTGTAAATGTAATCAGATGCCATTTATATGTGGACGTATTTATACTGGCCAAACATATTT  
TTTTCTTTGTCCCTTTTTTCTTTCCTTTCTTTTTTACTTCCTTTATTTCTTATTCCCTCTTTCCNTTTTTNNNNN  
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNGCTAGTGTGTGTACCCACGCCATTTTACGTCTCCTTCACGTGAAGGG  
CTAGAGTTTTAACTTTTTAAATTTTTTATATTTAAATGTAGACTTTTGACACTTTTAAAAAACAAAAAGACAAGA  
GAGATGAAAACGTTTGATTATTTTCTCAGTGTATTTTGTAAAAAATATATAAAGGGGGTGTAAATCGGTGTAAA  
TCGCTGTTTGGATTTCTGTATTTTATAACAGGGCGGCTGGTTAATATCTCACAGATTAAAAAATCAGCCCTTA  
ATTTCTCCATGTTTACACTTCAATCTGCAGGCTTCTTAAAGTGACAGTATCCCTTAACCTGCCACCCAGTGTCCAC  
CCTCCGGCCCCCGCTTTGTAAAAAGGGGAGGAGAATTAGCCAAACACTGTAAAGCTTTTAAAGAAAAACAAAGTTTT  
AAACGAAATACTGCTCTGTCCAGAGGCTTTTAAACTGGTGCAATTACAGCAAAAGGGATTCTGTAGCTTTAACT  
TGTAACCATCATCTTTTTTGCACTTTTTTTATAAGCAAAAACGTGCCGTTTAAACCATGGATCTATCTAAATGC  
CGATTTTGAGTTCGCGACACTATGTACTGCGTTTTTCATTCTTGTATTGACTATTTAATCCTTTCTACTTGTGCGC  
TAAATATAATTTGTTTAGTCTTATGGCATGATGATAGCATATGTGTTCAAGGTTTATAGCTGTTGTGTTAAAAAT  
TGAAAAAGTGGAAAACATCTTTGTACATTTAAGTCTGTATTATAAAGCAAAAAGATTGTGTGTATGTATGTT  
TAATATAACATGACAGGCACTAGGACGTCTGCCTTTTTAAGGCAGTTCGGTTAAGGGTTTTTGTTTTTAACTTT  
TTTTTGCCATCCATCCTGTGCAATATGCCGTGTAGAATATTTGTCTTAAATTTCAAGGCCACAAAAACAATGTTT  
GGGGGAAAAAAAAGAAAAATCATGCCAGCTAATCATGTCAAGTTCACGTGCTGTGAGATTGTTGATATATACCT  
TCTGTAAATAACTTTTTTGTAGAAGGAAATAAAATCAGCTGGAACGTAACCTTAAAAAATCTATGTGCGGTGC  
GGAGAAAGAGGTAATGAAATGGCA

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**FIGURE 117**

MRRRVFFLHRCSILVFLFPCKCNQMPFYMWTYLYWPNIFFLLSLFFFPFFLLPLFLIPPFXXXXXXX

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**FIGURE 118**

GGGCGCGCCAGAGACGCGAGCGCGGCTCCCAACCCACACCCACCGCGCCCTCGTTCGCGCTCTTCTCCGGGAGCC  
AGTCCGCGCCACCGCGCGCGCCAGGCCATCGCCACCCTCGCGAGCC**ATG**TCCACAGGTCCGTGTCTCTGTCCT  
CCTACCGCAGGATGTTTGGCGGCCCGGGCACCGCAGCGCGGCCGAGCTCCAGCCGGAGCTACGTGACTACGTCCA  
CCGCGACCTTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCGCCGAGCCTCTACGCCCTCGTCCCCGGGCGCG  
TGTATGCCACGCGCTCCTCTGCGCTGCGCTGCGGAGCAGCGTGCCCGGGGTGCGGCTCTTGCAGGACTCGGTGG  
ACTTCTCGCTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGC  
TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCTTGAGCAGCAGAATAAGATCTCTGTGGCCGAGC  
TCGAGCAGCTCAAGGGCCAAAGCAAGTCGCGCTTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC  
AGGTGGACCACTAACCACGACAAGAGCCCGCTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC  
TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTCAGACAGGATG  
TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAGTGGAATCTTTGCAAGAAGAGATTGCCITTTTGA  
AGAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTACGGAACAGCATGTCCAATTCGATGTGGATG  
TTTCCAAGCCTGACCTACGGCTGCCCTGCGTGACGTACGTACGCAATATGAAAGTGTGGCTGCCAAGAACCTGC  
AGGAGGCAGAAGATGGTACAAATCCAAGTTTGTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGC  
GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGAATGCCCTTAAAG  
GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGTGCTAACTACCAAG  
ACACTATTGGCCGCTGTCAGGATGAGATTGAGAAATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG  
ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCCGAGGAGAGCA  
GGATTCTCTGCGCTCTTCCAACCTTTTCTCCCTGAACTGAGGGAACTAATCTGGATTCACTCCCTCTGGTTG  
ATACCACTCAAAAAGGACATTCTGATTAAGACGGTTGAACTAGAGATGGACAGGTTATCAACGAACTCTC  
AGCATCACGATGACCTTGAA**TAAAAA**TTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA  
AGAAATCCCATATCTTAAAGAAACAGCTTTCAAGTGCCCTTCTGCAAGTTTTCAGGAGCGCAAGATAGATTGGA  
ATAGGAATAAGCTCTAGTTCTTAAACACCGACACTCTACAAGATTAGAAAAAGTTTACAACATAATCTAGTT  
TACAGAAAAATCTTGTGCTAGAACTACTTTTAAAAAGGTATTTGAATACCATTAAACTGCTTTTTTTTTCCAG  
CAAGTATCCAACCACTTGGTTCTGCTTCAATAAATCTTTGGAATACTCCA

**FIGURE 119**

MSTRSVSSSSYRRMFGPGTASRPSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVP  
GVRLLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLEQQNKILLAELEQLKGQGSRLGDLY  
EEMRELRRQVDQLTNDKARVEVERDNLAEIMRLREKLQEEMLQREEAENTLQSFQDVNDASLARLDLERKVE  
SLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRQQYESVAAKNLQEAEEWYKSKFADLSE  
AANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMRMEENFAVEAANYQDTIGRLQDEIQNMKEE  
MARHLREYQDLLNVKMALDIEIATYRKLLGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRIFLIKTVETR  
DGQVINETSQHHDDLE

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FIGURE 120

TGCCCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCCTCCTGCAGTGTCTGACACGAAACCCGACGCTATGCTGCTG  
ACAGCCGGGATCCCGCCAGCGACCCAGATGCAGCACTGGAAGGAGCAGCGGCCGCGCAGAAAGCTGATGTCTCTGA  
CCACTGGAGCTGGTAACCCAGTAGGAGACAAACTTAATGTTATTACAGTAGGGCCCGTGGGCCCTTCTGTGTC  
AGGATGTGGTTTTCTAGTGAATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGATTGTGCATGCTAAAG  
GAGCAGGGGCCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACCTCAAGGCAAGGTATTTGAGCATA  
TTGGAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG  
ACCTCGTGGGTTTGAGTGAATTTTACACAGAAGATGGTAACCTGGGATCTGCTGGAAATAACACCCCATTT  
TCCTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAATCCTCAGACACATCTGAAGG  
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCTCTGCATCAGGTTTCTTTCTGTTCAGTGATC  
GGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAAATGGGG  
AGGCAGTTTATTGCAAAATCCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATCGGGCGAGAC  
TTTCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAGTACCCCTCCTGGA  
CTTTTTTACATCCAGGTATGACATTTAATCAGGCAGAACTTTTCCATTAAATCCATTTCGATCTCACCAAGGTTT  
GGCTCACAGGACTACCCCTCATCCAGTTGGTAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGTGTG  
AGGTTGAACAGATAGCCTTCGACCCAAAGCAACATGCCACCTGGCATTGAGGCCAGTCTTGACAAAATGCTTCAGG  
GCCGCTTTTTTGCTATCCCTGACACTCACCGCCATCGCCTGGGACCCAAATTATCTTCATATACCTGTGAAGTGTG  
CCTACCGTGCTCGAGTGGCCAACTACCAGCGTGATGGCCCGATGTGCATGACGAGCAATCAGGTTGGTGTCCAA  
ATTACTACCCCAACAGCTTTGGTGTCTCCGGAACAACAGCCTTCTGCCCTGAGGACAGCATCCAATATTCTGGAG  
AAGTGCAGGAGATTCAACTGCCAATGATGATAACGTTACTCAGGTGCGGCATTCTATGTGAACGTGCTGAATG  
AGGAACAGAGGAAACGCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAAGAAAG  
CGGTCAAGAACTTCACTGAGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTCTGGACAAGTACAATGCTG  
AGAAGCCTAAGAATGCGATTACACCTTTGTGTCAGTCCGGATCTCACTTGGCGGCAAGGAGAGGCAAAATCTGCT  
GAGGCCGGGGCCCTGCACCTGTGCACGCAAGCTTAGCGTTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT  
CTCCTGTGCTAGATGTGCAAAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA  
ACAATTTTAATGCTATTTCCCAAGGGGAAAATGAAGTTAGGATTTAACAGTCAATTTAAAAAAAATTTGTTTT  
GACGGATGATTGGATTATTCATTTAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA  
AATTTGTTGAAATATGTATGTTTACATATCACCTCATGGCCTATTATATTAATAATATGGCTATAAATATATAAA  
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTATTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA  
GCAGTGTCTACAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAAATATGATCAAAATTCAT  
TTTTTCACTGGAGTTACATTAATGTTAATTCAGCACTGATTTCAACACAGATCAATTTGTAATTTGCTTACATTT  
TTACAATAAATAATCTGTACGTAAGAACA

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**FIGURE 121**

MADSRDPASDQM~~Q~~HWKEQRAAQKADVLTITGAGNPVGDKLNVITVGRGPLLVQDVVFTDEMAHFDRERIPERVVH  
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT  
PIFFIRDPILF~~P~~SIHSQKRNPQTHLKD~~P~~DMVWDFWSLRPESLHQVSFLFSDRGIPD~~G~~HRHMNGYGSHTFKLVNA  
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGI~~R~~DLFNAIATGKYPSWTFYIQVMTFNQAETFFPNPFDLT  
KVWPHKDYPLIPVGKLVLN~~R~~PNVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHLGPNYLHIPV  
NCPYRARVANYQRD~~G~~PMCMQDNQGGAPNYYPN~~S~~FGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAF~~Y~~VNV  
LNEEQKRKLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA  
NL



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FIGURE 122

ATCAGCGAGGGATTACGCGCGAAATGAGACTGTTCTGTAGTATGGCGTCCCGGGTGGCTTGC CGGTGCTGGCCG  
CCGCCGGGAGAGCCCGGGGAGAGCAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC  
TGACCCGGCCTAAGGTCCCTGTCTTGCAGCTGGATAGCGGCAACTACCTCTTCTCCACTAGTGCATCTGCCGAT  
ATTTTTTTTTGTATCTGGCTGGGAGCAAGATGACCTCACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC  
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAGGGGGAAGATGTTCTTGGTTCAGTGC  
GGAGAGCCCTGACTCACAATTGACCAACAGCTTGAGTCGTGAGAAGTGTCTTCTCTGGCTGGGAGACAGAAATCTC  
TAGCCGACATTGTTTTGTGGGAGCCCTATACCCATTACTGCAAGATCCCGCTTACCTCCCTGAGGAGCTGAGTG  
CCCTGCACAGCTGGTTCAGACACTGAGTACCCAGGAACCATGTACGCGAGCTGCAGAGACTGTACTGAAACAGC  
AAGGTGTCTTGCTCTCCGCGCTTACCTCCAAAAGCAGCCCCAGCCAGCCCGCTGAGGGAAGGGCTGTACCA  
ATGAGCTGAGGAGGAGGAGCTGGCTACCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG  
GCCTAGAAAGTTGCCCCGCTGCGGCCCCAGCAGAAATCCAGTGTTCCTGTGGCTGGAGAAAGGAATGTGCTCA  
TCACCACTGCCCCCTTACGTCAACAATGTCCCCACCTTGGGAACATCATTGGTTGTGTCTCAGTGCCGATG  
TCTTTTCCAGGTACTCTCGCCTCCGCCAGTGGAAACCCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA  
CAGAGACCAAGGCTCTGGAGGAGGAGTAAACCCCGAGGAGATCTGCGACAGTACCACATCATCCATGCTGACA  
TCTACCGCTGGTTTAACTTTCGTTTGAATTTTTGGTGCACCACTCCACAGCAGACAAAATCACCAGG  
ACATTTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGGGATGTGAGCACTGTG  
CTCGCTTCTTGCTGACCGCTTCGTGGAGGGCGTGTGTCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCACT  
GTGACAAGTGTGGCAAGCTCATCAATGTCTGAGCTTAAGAAGCCTCAGTGTAAAGTCTGCCGATCATGCCCTG  
TGGTGCAGTCGAGCCAGCACTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA  
CATTGCTTGGCAGTGTGACAGCCCAATGCCAGTTTATCACCCTTCTTGGCTTCGGGATGGCTCAAGCCAC  
GCTGCATAACCCGAGACTCAAAATGGGGAACCCCTGTACCCCTAGAAGGTTTTGAAGACAAGGATTTCTATGTCT  
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCAACTACACAGACCAGTGGGAGAGATGGTGGAGAACC  
CAGAGCAAGTGGACCTGTATCAGTTTATGGCCAAAGACAATGTTCTTCCATAGCTTAGTCTTCTTGTCTCAG  
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACATATGAGGATGGGA  
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTGGGGACATGGCCAGGACAGGGGATCCCTGCTGACATCTGGC  
GCTTCTATCTGCTGTACATTCCGCCCTGAGGGCCAGGACAGTGTCTTCTCCTGGACGGACCTGCTGCTGAAGAATA  
ATTTCTGAGCTGCTTAAACAACCTGGGCACTTATCAACAGAGCTGGGATGTTTGTCTAAGTTCTTTGGGGGCT  
ATGTGCTGAGATGGTGTCAACCTGATGATCAGCGCTGTCTGGCCATGTCAACCTGGAGCTCCAGCACTATC  
ACCAGCTACTTGAGAAGGTTCCGATCCGGGATGCCTTGGCGAGTATCTCACCATATCTCGACATGGCAACCAAT  
ATATTCAAGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGAGGAAACAGTGACTG  
GCTTGGCAGTGAATATAGCTGCCTTGTCTCTGTGATGCTTCAAGCTTACATGCCACGGTTAGTGCCACAATCC  
GACCCAGCTGACAGTCCCACTCCAGCTCCAGTCTGAGTATCTGCTGACAACTTCTGTGTACTTACGACAGGAC  
ACCAGATTGGCAGCTGAGTCCCTTTGTTCCAAAAATGGAAAAATGACCAGATTGAAAGTTTAAAGCAGCGCTTG  
GAGGGGGGAGGCAAAAACGTCGCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAAGCCAGCAGATAC  
AAGCGCTGATGATGAAGTGACAAAACAGGAACATTGTCCGAGAACTGAAAGCACAAAAGCAGACAAGAACG  
AGGTTGCTGCGGAGGTGGCGAAACTCTTGGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG  
CCCTTAAAGGCAAGAGAAAGAAAGTAAAGAGCCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATA  
ATAAATGTACAACTCTATA

**FIGURE 123**

MRLFVSDGVPGLPVLAAAGRARGRAEVLISITVGPEDCVVPFLTRPKVPVLQLDSGNLFFSTSAICRYFFLLSGW  
EQDDLINQWLEWATELQPALSAALYYLVVQKKGEDVLGSVRRALTHIDHSLSRQNCPPFLAGETESLADIVLWG  
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPQRAAETVLKQGGVLALRPYLQKQPQSPAEGRAVTNEPEEEEL  
ATLSEEEIAMA VTAWEKGLESPLRPQONPVLPA GERNVLITSALPYVNNVPHLGNIIIGCVLSADVFARYSRL  
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIHAD IYRWFNISFDIFGRITTTPOQTKITQDIFQQLLK  
RGFVLQDTEVQLRCEHCARFLADRFVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL  
FLDLPKLEKRLEEWLGRTLPGSDWTFNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKVFYVWFDA TIGY  
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHSLVFP CSALGAEDNYTLVSHLIATEYLYNEDGKFSKSRGV  
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T  
PDDQRLLAHVITLELQHYHQLLEKVRI RDALRSILTISRHGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA  
LLSVMLQPYMPTVSATIQAQLQLPPPACSI LLTNFLCTLPAHQIGTVSPLFQKLENDQIESLRQRFGGGQA KTS  
PKPAVVETVTTAKPQQIQAIMDEVTKQGNIVRELKAQKADKNEVA AEVAKLLDLKKQLA VAEGKPPPEAPKGGKKK

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FIGURE 124

ATTCGAACCCCGTCGCGCCCTTTGTGCGTCACGGGTGGCGGGCGGGGAAGGGGATTGGATTGTTGCGCCTCT  
GCTCTGAAGAAAGTGCTGTCTGGCTCCAACCTCCAGTTCTTTCCCTGAGCAGCGCCTGGAACCTAACCCCTCCCA  
CTCTGTCACCTTCTCGATCCCGCGCGCTTTAGAGCCGAGTCCAGTCTTGGATCCTTCAGAGCCTCAGGCAT  
AGCTGCGCATGTCATGTGATCAAGCGAGATGGCCGCAAGAACGAGTCATGTTTGACAAAATTACATCTCGAATCCA  
GAAGCTTTGTTATGGACTCAATATGGATTTTGTTGATCCTGCTCAGATCACCATGAAAGTAATCCAAGGCTTGTA  
CAGTGGGGTCACCCAGTCAGAACTAGATACTTTGGCTGCTGAAACAGCTGCAACCTTGACTACTAAGCACCCCTGA  
CTATGCTATCCTGGCAGCCAGGATCGCTGCTCTAACTTGCACAAAGAAACAAAGAAAGTGTTCAGTGATGTGAT  
GGAAGACCTCTATAACTACATAAATCCACATAATGGCAACACTCTCCCATGGTGCCAAGTCAACATTGGATAT  
TGTTCTGGCCAATAAAGATCGCTGAATTTCTGCTATTATCTATGACCGAGATTCTCTTACAATTACTTCGGCTT  
TAAGACGCTAGAGCGGTCTTATTTGTTGAAGATCAATGGAAGTGGCTGAAAGACCACACATATGTTGATGAG  
AGTATCTGTTGGGATCCACAAAGAAGACATTGATGCAGCAATTGAAACATATAATCTTCTTCTGAGAGGTGGTT  
TACTCATGCTTGCGCCACTCTCTTCAATGCTGGTACCAACCGCCCAACAATTCTAGCTGTTTTCTCTGAGTAT  
GAAAGATGACAGCATTGAAGGCATTTATGACACTCTAAAGCAATGTGCATTGATTTCTTAAGTCTGCTGGAGGAAT  
TGGTGTGCTGTGAGTTGATTTCGGGCTACTGGCAGCTACATTGCTGGGACTAATGGCAATCCAATGGCCTTGT  
ACCGATGCTGAGAGTATATAACAACACAGCTAGATATGTGGATCAAGGTGGAACAAGCGTCTCTGGGCAATTTGC  
TATTTACCTGGAGCCTTGGCATTTTAGACATCTTTGAATTCCTTGATTTAAAGAAGAACACAGGAAAGGAAGCA  
GCGTGCCAGAGATCTTTTCTGCTCTTTGGATTCCGGATCTCTTCATGAAACAGTGGAGACTAATCAGGACTG  
GTCTTTGATGTGTCCAAATGAGTGTCTGGTCTGGATGAGGTTTGGGAGAGGAATTTGAGAACTATATGCAAG  
TTATGAGAAACAAGGTGCTGTCCGCAAAGTTGTAAGAGCTCAGCAGCTTTGGTATGCCATCATTGAGTCTCAGAC  
GGAACAGGCACCCCGTATATGCTCTACAAAGATTCTGTAATCGAAAGAGCAACAGCAGAACCTGGGAACCAT  
CAAAATGCAGCAACCTGTGCACAGAAATGTGGAGTACACCGCAAGATGAGGTTGCTGTTTGTAATTTGGCTTC  
CCTGGCCCTGAATATGTATGTCACATCAGAACACACATACGACTTTAAGAAGTTGGCTGAAGTCACTAAAGTCGT  
TGTCCGAACTTGAATAAAATTTATGATATAAACTACTATCCTGTACCAGAGGCATGCCTATCAATAAACGCCA  
TCGCCCCATTGGAATTTGGGGTACAAGGTCTGGCAGATGCTTTATCCTGATGAGATACCCCTTTTGAGAGTGCAGA  
AGCCAGTTACTGAATAAGCAGATCTTTGAAACTATTATATGTTGCTCTGGAAGCCAGCTGTGACCTTGCCAA  
GGAGCAGGGCCCATACGAAACCTATGAGGGCTCTCCAGTTAGCAAAGGAATTTCTCAGTATGATATGTGGAATGT  
TACTCCTACAGACCTATGGGACTGGAAGGTTCTCAAGGAGAAGATTGCAAGATATGGTATAAGAAACAGTTTACT  
TATTGCCCGATGCTACAGCTTCCAATGCTCAGATCCTGGGGAAATAAGTAGTCCATTGAACCTTACACCAGCAA  
CATCTATATCTCGCAGAGCTTGTTCAGGAGAATTTTCAGATTGTAATCCTCACTATTGAAAGATCTTACCGAGCG  
GGGCTTATGGCATGAAGAGATGAAAAACCAGATTATTCATGCAATGGCTCTATTTCAGAGCATACCAGAAATTC  
TGATGACCTGAAGCACTTTATAAACTGTGTGGGAAATCTCTCAGAAAACCTGTTCTCAAGATGGCAGCTGAGAG  
AGGTGCTTTCAATTGATCAAGGCCAATCTTTGAACATCCACATTGCTGAGCCTCAACTATGGCAAACTCAGTAGTAT  
GCATCTTACGGCTGGAAGCAGGGTTTGAAGACTGGGATGTATTATTAAGGACAAGACCAGCAGCTAATCCAAT  
CCAGTTCATCTAAATAAGGAGAAGCTTAAAGATAAAGAAAGGATATCAAAAGAGGAAGAAGAGAGGAGGAA  
CAGACAGCCATGTGTGCTCTTTGGAGAATAGAGATGAATGCTGTGATGCTGAGTACCTGAGGAAAGACTTGGAA  
GAGACCAGCATGCTTTCAGTAGCCAACTACTTCTTGAGCATAGATAGGTATAGTGGGTTTGGCTGAGGTGGTAA  
GGCTTTGCTGGACCCTTTGTCAGGCAAAAGGAGTAATTGATTTAAAGTACTGTTAATGATGTTAATGATTTTTT  
TAAACTCATATATTGGGATTTTCCACAAAATAATGCTTTTGAAAAAAGAAAAAAGCCGATATATTGAGAA  
TCAAAGTAGAAGTTTATAGAAATGCAAAATAAGTCATCTTGATACACAGGAGTGGTTAAGTAAGGTTTCATCACC  
ATTTAGCATGCTTTTCTGAAGACTTCAGTTTGTGAAGGAGATTAGTTTACTGCTTTGACTGCTGGTGGGCTCTA  
GAAGCAAACTGAGTGATACTCATGAGAAGTACTGATAGGACCTTTATCTGGATATGGTCTCATAGGTTATCTT  
GAAATAAGATAAACAATTCTAAGTGAAAAAAGAAAAA

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**FIGURE 125**

MHVIKRDGRQERVFMFDKITSRIQKLCYGLNMDFVDPAQITMKVIQGLYSGVITVELDTLAAETAATLTTKHPDYA  
ILAARIAVSNLHKETKKVFSDDVMEDLYNYINPHNGKHSPMAKSTLDIVLANKDRLNSAIIYDRDFSYNFYGFKT  
LERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFTASPTLFNAGTNRPQLSSCFLLSMKD  
DSIEGIYDTLKQCALISKSSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPMRLRVYNNTARYVDQGGNKRPGAFAYI  
LEPWHLDIFEFLDLKKNIGKEEQRARDLFFALWIPDLFMKRVEQDWSLMCPNECPGLDEVWGEEFEKLYASYE  
KQGRVRKVVKAQQLWYAIIESQTETGTPYMLYKDCSNRKSNNQNLGTIKCSNLCETIVEYTSKDEVAVCNLASLA  
LNMYVTSEHTYDFKKLAEVTKVVVRNLNKIIDINYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEAQ  
LLNKQIFETIYYGALEASCDLAKEQGPYETYEGSPVSKGILQYDMWNVTPDLDWDWKVLKEIAKYGIIRNSLLIA  
PMPTASTAQILGNNESEIEPYTSNIYTRRVLSGEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDD  
LKQLYKTVWEISQKTVLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFYGWKQGLKTGMYYLRTRPAANPIQF  
TLNKEKLKDKKEKVSKEEEEKERNATAAMVCSLENRDECLMCGS

TC TGGGCGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCGTGTCGCCGCCGACCCGCGCCGCGGATGC  
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCTCCCGCGG  
CCCGCGCTGCAAGCAAGGGCTCCGGCGACCCGTCTCTCTCTCTCTCCGGGAACCCGCTCGTGACTCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCCACCAACCAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAACTTTACACTGAAGCAGCTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCTTAACCAACGGCT  
CCCAGTTCTTCACTGTGACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGTCACGTCAAAGAGG  
GCATGGACGTGCTGAAGAAAATAGAATCTTTCCGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  
ACTGTGGCCAGTTGAGCTAATCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTAGCCAAGGTGCTGAAACGATACGTGTGCCACTCCACTGTCACAGTGTGCTGAGGAA  
GGCTGCTAGGGATGTTAGACTCGGCCAGGACCCACCACATGCTTCCTAATACCCACCCTTCCTACGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCCTGTGATTGCCAGCCCAGATT  
ATCTGTGCCCTTGACATGGTGATGGTGATGGGTGGCCATCCAAGTAAAAGTCTTTTCTTGACCAAGGGGACAG  
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGCTTCTCCTAATGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTAAAAGTGAACACTAAGTTCCTCCGTGCTGTGGTGTGACCTGAGTTGGTGACAGGGCCACAGACCCC  
AGAGCTTGGCTTTTGAACACAACTCAGGGCTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCTGGTTACTG  
TGAAGCCTGTTGGTTTGTGCTGCTGTCGTTTTTGAGGAGGGCCATGGGGTAGGAGCAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCTAGACAATGTGAATTCCTGTGTTGCTAACGAAGTGGCCTGAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCTGGTAGGCTTTGATTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTTTATG  
CATAAAACATTTCTGGAACATGATTGTGTTACCTTAAATGTGAAAAATAATCCTATTTCTATGAAAAAAA  
AAAAAAAAAAAAAAAA

**FIGURE 127**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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FIGURE 128

TC TGGGCGCGCGCGACGTCAGT TTTGAGT TCTGTGTTCTCCCCGCCGTGTCCCGCCGACCCGCGCCCGCGGATGCTG  
TGCGCGTGCCTGCGGCTCCCGCTGGCTCGGCTGCTCTCCGTCCCGCGCTCCGTGCCGTGCGCCTCCCCGCGG  
CCCGCGCCTGCGAGCAAGGGCTCCGGCGACCCGCTCTTCTCTCTCTCTCCGGGAACCCGCTCGTGTACCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCTGGTGTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAAC TTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCTTAACACCAAGGGCT  
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGTACGTCAAAGAGG  
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  
ACTGTGGCCAGTTGAGCTAACTCTGTGGCCAGGGTGTGGCATGGTGGCAGCTGCAAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTGAGCCAAGGTGCC TGAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA  
GGCTGCTAGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCTTCTTCACGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCTGTGATTGCCAGCCGAGATTG  
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTGTCATCCAAGTGAAAGTCTTTTCTTGACCAAGGGGGACAG  
TCAGTTTTCGAAAAGGACTCTAATACCTGTTTAATATTGCTTCTCAATTGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTGAAACTGCAACACTAACTTCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC  
AGAGCTTGGCTTTTGAACACAACTCAGGGCTTTTGTGAAGGTTCCCGCGTGAGATCTTTCCTCTGGTTACTG  
TGAAGCCTGTTGGTTGCTGCTGCTGTTTGTGAGGAGGGCCCATGGGGGTAGGACAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCTGGTAGGCTTTGATTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG  
CATAAAACATTTCTGGAACATGATTTGTGTTACCTTAAATGTGAAAAATAAATCCTATTTCTATGGAAAAAA  
AAAAAAAAAAAAAAAA

**FIGURE 129**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFYKYSTFHRVIPSFMCQAGDFTNHNHTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS



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**FIGURE 130**

CGGCGGAGCTGGTCCCGTTGTGCTGCGGCGCCGCGGGCCTGCAGTCCGGGGCCCGCGCCCCGCGCGCGCCGCCC  
GCCCGCC**ATGG**AGCCCGGCCCGACGGGCCCGCCGCTCCGGCCCCGCCGCCATCCGCGAGGGCTGGTTCGCGGA  
GACCTGCAGCCTGTGGCCCGGCCAGGCCCTGTGCGTGCAGGTGGAGCAGCTGCTCCACCACCGCGCTCGCGCTA  
CCAGGACATCCTCGTCTTCCGCACTAAGACCTATGGCAACGTGCTGGTGTGGACGGTGTCATCCAGTGCACGGA  
GAGAGACGAGTTCTCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT  
GATCATCGGGGGCGGAGATGGAGGTGTCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG  
TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAGTTCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA  
GGTGACCCCTACATGTGGGTGACGGTTTTGAGTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA  
CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCCATTACCAGCTCATGAAGACAGCCCTCAA  
GGAAGATGGTGTCTCTGCTGCCAGGGCGAGTGCAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT  
CTGCCAGTCCCTGTTCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCAGCGGGCAGATCGGCTT  
CATGCTGTGCAGCAAGAACCAGGACGAACTTCAGGAGCCGCTGCACCGCTGACACAGCAGCAGGTGGCGCA  
GATGCAGCTGAAGTACTACAACCTCCGACGTGCACCGCGCCGCTTTGTGCTGCCGAGTTTGCCCGCAAGGCCCT  
GAATGATGTGAGCT**TGA**GCCAGCGCCACCACTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC  
TCGGCCCCCTCAGCCCCGGGCGGACCTCCTGCTGGCTCTGCGCCACCAACCAAGTGTACAAGCCCCAGAAATGC  
TGCCCGGCTGCCCCGCTGGGCGGACTGTCTGTGTCTGTCTCTGTGGCTTCCACCTCCAAGCCTATACCAGC  
TGTGTACAGGCCATCTCTCTGCCTTCTGTTGCCCCG

**FIGURE 131**

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSQVEQLLHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD  
EFSYQEMIANLPLCSHPNPRKVLIIIGGGDGGVLRVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT  
LHVGDFEFMKQNQDAFDVIIITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ  
SLFPVVAYAYCTIPTYPGGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYNSDVHRAAFVLPEFARKALND  
VS

**FIGURE 132**

GCGCTCCGGGCGCTGGAATCCCTACGCGTCCCTTTGGGTTTAGCACGATGAGCTCAATCGGCACTGGGSTATGACCT  
GTCAGCCTCTACATTCTCTCTGACGGAAAGAGTTTTTCAAGTTGAATATGCTATGAAGGCTGTGGAAAAATAGTAG  
TACAGCTATTGGAATCAGATGCAAAGATGGTGTTCCTTTGGGGTAGAAAAATTAGTCCCTTCTAAACTTTATGA  
AGAAGGTTCCAAACAAAAGACTTTTTAATGTTGATCGGCATGTTGGAATGGCAGTAGCAGGTTTGTGGCAGATGC  
TCGTTCTTTAGCAGACATAGCAAGAGAAGAAGCTTCCAACCTTCAGATCTAACTTTGGCTACAACATTCCTACTAAA  
ACATCTTGCAGACAGAGTGGCCATGTATGTGCATGCATATACACTCTACAGTGTCTGTAGACCTTTTGGCTGCAG  
TTTCATGTTAGGGTCTTACAGTGTGAATGACGGTGCACAACCTACATGATTGACCCATCAGGTGTTTCATACGG  
TTATTGGGGCTGTGCCATCGGCAAAAGCCAGGCAAGCTGCAAAGACGGAATAGAGAAGCTTCAGATGAAAGAAAT  
GACCTGCCGTGATATCGTTAAAGAAGTTGCAAAAATAATTTACATAGTACATGACGAAGTTAAGGATAAAGCTTT  
TGAAGTAGAACTCAGCTGGGTTGGTGAATTAACATAATGGAAGACATGAAATTGTTCCAAAAGATATAAGAGAAGA  
AGCAGAGAAATATGCTAAGGAATCTCTGAAGGAAGAAGATGAATCAGATGATAATATGTAAACATTACTCCA  
GCATCTATTGTATTTTAAATTTCTACTCCAGTCCAATGTAACATTTAGCCCTGGATTATACATACTGTCCAATT  
TTCATTAAATTTTGTCTTATAACTATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 133**

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENSSTAIGIRCKDGVVFGVEKLVLSKLYEEGSNKRLFNVDHRVG  
MAVAGLLADARSLADIAREEASNFRSNGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY  
MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH  
EIVPKDIREEAKEYAKESLKEEDESDDDNM

GGCACAGGCGGCACTTTTGCGGAGGTAGTCTCTTTGGCAGCGGGG**ATG**CGGGGTACCGTGGTGCTGGACAGATGTGG  
AGCTCGCGGGAGGCTCAGAGAGATTACCTGGACTCTCTGGACAGCGAGGAAGACCGGAATTATCAGAGCAAAAG  
TTCGGGAGCGTACAGTGCACCAACATACCGGCTGATTGTCAATGTAGTACCTTGCAGAGAAAAACGAGAAGA  
GGGCTAACCCGGCTTGCAACAGTCCGTTTGAGGAGCTGGTTCCTTCCAGCGGGGCTTTAAAGGATTTTGTGGCCCT  
CCATTGATGCTACCTATGCCAAGCAGTATGAGGAGTTCACGTAGGACTGGAAGGACGCTTTGGCTCCAAAGCAGC  
TCTCCCGGGGCACTTTACCTCTGCTTCTCAGCTGTGTGGTCTGTGTGGAGGCGATTGTCATAAAATGTTCTC  
TAGTTCGTCCTCAAAAGCTCGCGGAGCTGCTCACTACTGTCTCTGCTATCAAGAAGCACTAGAGCAGCACTTATCTCTG  
ATCTCACACACTGGTGCCCTTTCCCTAGAGCTGTGCTGTCTTACCAGGATGAGGAGAACAATCCCTTGAAG  
AGAATATGGCCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAAGGCCACGCG  
CGCAGCTCCCGGCTCTGTGGACGCTCATCTCGATGATGACTTGGTGGAATAAGCGAAGCTGTGGTACCGGGTTC  
AGGTGTGGGAACCTACGTTGCTCTTCTGGAAAGAGGGGAGGAGCTACACCTTGGGACCTTCAGGACTGCTCTGA  
TTGCCGTAAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTGCTGAGATATAGGCAAGATCAAGA  
AGTTCAGTAAAGACCCGATCCAAGGATATTTTGACCACTGGCCAACTGTGGCCCAAGTATCCATGGGCATG  
ACATATGCAAGAAACCAATGCTGCTGTGCTTTGGGAGGGGTGGAACGAGACCTAGAAATGGCAGGCCATCC  
GTGGGGAACAATAATTTCTTCAATAGGAGACCCATCGGTTGCCAAGTCTCAGCTTCTCGCGGTATGAGCTTGA  
CTGACCCCGGAGCTATCCCACTAATGGCGGGGGGCTCTTGAAGTGGGTGCTGACGGCTGCTGTACACAGCCCT  
AGGAACACAGGAGAGCGCCGCTTGAAGCAGGGGGCCATGGTCTGGCTGACCAGGGCGTGGTTTGCAATGATGAAT  
TTGACAAATATGCTGCATCGATGAGTGCACAGCCATCCATGAAGTGTGGACAGGGCTCGATGACCAATGCCAAGC  
CTGGCACTTAATCTCGGCTGAATGCCGCTGAGTGTCTTTGGCAGTGTGCCAACCTCTGTCACGGAGGATATGCC  
AGTATAAGACTCCAAATGGAGAACATTTGGGCTACAGGACTCACTGCTGTCAAGATTGACTTGCTCTTCATCATGCT  
TGGATCAGTGATGATCTGAGCAGATATGCGGAGATCTACAGCACTGTCTTCGGATGACCCGTTACAGAGCACTG  
GGGAGCAGGATGGCGATGCTATGCCCTTGGGTAGTGTGTGGAATGCTTGGCCGACAGATATCCCAACTTTAGCC  
AGGAAGATCAGCGAGACACCCAGATTTATGAGAAAGATGACAACCTTCTACATGGGACCAAGAAAGAAAGGAGA  
AGATGGTGTGAGCAGCATCTAGAAGAACTACATCCATGTGGCCAAATCATCAAGCCTGTCTGCACAGGAGT  
CGGCGCACTCACAATTGTCAGAAGATATTCACGGCTGCGCAGCCAGGATAGCATAGCTCAGACACCGCCAGGACAT  
CTCCAGTTACAGCGCAAACCTGAAAGCTCTGATCAGCTGGCCACAGCCCTCGGAAGGCGCGCATGCAAGCA  
CTGTGACCTCGAGATCAGAGGAAGCTGTGAGTTGGTCTGAGCATGTCTACTTTAAGAAAGGTTCTGGAGAAGG  
AGAGAAGAACCTAAGAACGCAAGTGAAGTGAATCAGAGACAGAAGATGAAGAGGAGAAAAGCCAAAGAGGACCAG  
ACAGAGAAGGAGAAGAAAGGAAGACTCGCCAGCAGGATGTGCCAAAGTGGGGATTCATACGACCCCTATGACTTCA  
GTGACAGAGAGGAGGAATGGCTCAAGTACAGCTCCAAAGACGCGACACTCAGACAGCAACGAAGATCCCGACA  
AAGTGGAGTTGAGTGAATCCAGGTTGAAGGCCATTCAAGGTGGCCCTCTTGGATGTGTTCGGGAAGCTCATGCGC  
AGTCAATCCGATGAATGCCCTCAGAGAATCCATCAACCGGACAGCGAAGGCCCTTCTCTTCAGTTGAGATCC  
AGGCTGCTCTGAGAAGATGAGGATGACAAATCAGTCAATGGTGTCTGAGGCGACTTCTTCTCTCAT**TG**AGAG  
GCCCTGCTCTTGAATCTTGGGTTGCGGAGAGAGTTGTTCTGTGTGTTTCCAGCTTCCCTGAGGAGAGTCTT  
GCCCTACTCTCCTTAACAGTGTGAATTTCAACTGAAGCGAGGAATGTTGGGTGATGAAGCTGACCTTCAGGACTCT  
GTGGACCTTTTGGGAATGGGTCAATAAGGCTGCCATTGGGTTGAGGAAGAGGAGCAGTGGGAGAGGACAATGAC  
TATGCACTCTTCATGCAAAAGCACTTGCTCATCGGCCCTACTTCCCTCCACAAACCAACCAATATGTAATAC  
AATTGACTCTTGAGTACTTTTGGGGGCAACACTGTTTCTGCTGTGTTTGTGTTTGTGTTTCTTTCTTCCAG  
AGCACTTTGGCTCTAGACTAGGCTTTGGGTGGTTCCAAATTTGGTGAGAGAAGCTCTGAGGCAGCTCATGCAGTCA  
AGAAAGGCTTTCTTGCAATGACCAAGTTAAGTGAATATGTAATGTAACAAACCAACCAATATCCAGATG  
AATATCCGAGATGTTGAATAAATCTAGCCATTTCTGATCAAAAAGGGGGGGCGGTAAC

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**FIGURE 135**

MAGTVVLDDELREAQRDYLDLDFLDEEDQGIYQSKVRELISDNQYRLIVNVNDLRRKNEKRANRLNNAFEELVA  
FQRLKDFVASIDATYAKQYEEFYVGLEGSFGSKHVSPRTLTSCLFSCVVCVEGIVTKCSLVRPKVVRVSVHYCPA  
TKKTIERRYSDLTTLVAFPSSSVYPTKDEENNPLETEYGLSVYKDHQTITIEMPEKAPAGQLPRSDVILDDDL  
VDKAKPGDRVQVVGYRCLPGKKGGYTSCTFRVTLIACNVKQMSKDAQPSFAEDIKIKKFSKTRSKDIFDQLA  
KSLAPSIHGHYVKKAILCLLLGGVERDLENGSHIRGDINILLIGDPSVAKSQQLLRYVLTAPRAIPTTGRGSSG  
VGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSMDRTAIHEVMEQGRVTIAKAGIHARLNARCSVLA  
AANPVYGRYDQYKTPMENIGLQDSSLRFDLLFIMLDQMDPEQDREISDHVLRMHRYRAPGEQDGDAMPLGSADV  
ILATDDPNFSQEDQQDTQIYEKHDNLLHGTKKKKKEMVSAAFMKKYIHVAKI IKPVLTQESATYIAEEYSRLRSQ  
DSMSSDTARTSPVTARTLETILRLATAHAKARMSKTVDLQDAEEAVELVQYAYFKKVLKEKKRKRKSEDESETE  
DEEEKSQEDQEQRKRKRKTRQPDAGDSYDPYDFSDTEEEMPQVHTPKTADSQETKESQKVELSESRLKAFKVA  
LLDVFREAHAQSIGMNRLTESINRDSEEPSSVEIQAALSKMQDDNQVMVSEGIIFLI

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**FIGURE 136**

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG  
GAAGGAACCA**ATG**GCCAACTGTGAGCGTACCTTCATTGCGATCAAACCATGGGGTCCAGCGGGGCTTTGTGGGA  
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCCTTGTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT  
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAATACATGCACCTCAGGGCCG  
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA  
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT  
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTCACCCTGAGGAACCTGGTAGATTACACGAGCTGTGCTCAG  
AACTGGATCTATGAAT**TGA**CAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCTCCCTCCTCCCATGGGCAGA  
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACCTCATATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG  
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCCAGC

**FIGURE 137**

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPFVVA  
MVWEGLVVVKTRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSQAQNW  
YE



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FIGURE 138A

GGCTCATAGAGCTGAACAGTTGCAGGATGCGGAGGAGGAAAAAGATGATTCAAATGAAGAAGAAAAACAAGACAG  
CCTTGTAGATGATGAAGAAGAGAAAGAAAGATCTTGGCGATGAGGATGAAGCAGAGGAAGAGAGGAGGAGACAA  
CTTGGCTGCTGTTGGATGAGGAGAGAAGTGAGGCCAATGATCAGGGGCCCCAGGAGAGGACGGTGTGACCCG  
GGAGGAAGTAGAGCTGAGGAGGCTGAAGAAGGCATCTTGAGCAACCTGCCAGCTGACACAGGTGGTGGGA  
AGACTCCTTGAGCGAGCTGAAAGGATGACGATGCTGACAAGGGACTGTAGATTATATGATGCGTTTTCAAGAATAC  
ACACCAAAACAATATGTGACGTTCCCTTTGGCGTGCAGTTTGTACCAAAATCCTTAATTTTTCTGTAATGAGCAAG  
CTTCTCTTAAAAAGTGTCTCTCTAGTCAATTTGGTCTCATGGCAGTAAGCCTCATGTATACTAAGGAGAGTCTTCCA  
GGTGTGACAACTCAGGATATAGAAAAACAACAGTAGTGTGGGATCTGTTTGGAGACTGGGATGGGAACAAGTTCA  
TTTACTTAGGGGTGACAGAGTCTCGACCCAGAGGAGGCCATCCCCAGTCCATAATCAGCACCTCCAGAGACAGGCG  
TGACGGCCCTGTGAATAAGAAAGCCAAGCAGGAGCCTTGGCTCCTGAGCATCCCCAAAGTGTAACTGAGAAGCCTT  
GCATCCTTTTCTGTGAAGATATTTATTTTGTCAAAATGACAGGAACATCAGGCACCACAGTGCATGAAAAAT  
CTTTCACAGCTAGAAATTTAAAGGGCCCTGGGTATAGAGAGCAGCTCAGAAGTCAATCCAGCCCTCTGAATCTCC  
TGTGCTATGTTTTATTCTTACCTTAAATTTTCCAGCAITTCACACCTAGGCTCTCCACACTCTTC  
ACTATTATCTCTTGGTCAGAGGACTCCAATAACAGCCAGGTTTACATGAACCTGTGTTGTTCATTCTGACCTAAG  
GGGTTTAGATAATCAGTAACCAATAACCCCTGAAGCTGTGACTGCCAAACATCTCAAATGAAATGTTGTGGCCATC  
AGAGACTCAAAGGAAAGTGAAGATTTTACAAGACAGATTAAAAAAAATGGTTTTGTCCAAAATATAGTTGTGT  
TGATTTTTTTTTAAGTTTTCTAAGCAATATTTTCAAGCCAGAAGTCCCTTAAGTCTTGGCAGTACAAGGTAGTC  
TTGTGAAGAAAAGTTGAATACTGTTTTGTTTTCACTCAAGGGTTCCTGGGTCTGGAACACTTTTAATAATAA  
CTTAAAAACCACTCTGTTTTTCTTCAGTGATGTGCTTTTGGTGAAGAAATTAATGAACCTCAGTACCTGAAAG  
TGAAAGATTGTTGTTTTTCCATCTTCTGTAATCTTCCAAAGAAATATATCTTTGTAATCTCTCAATACTCAA  
CCTACTGTAAGTACCAGGGAGGCTAATTTCTTAAAAAAAATAATCTATCATCTACTTCTCTCTTACCTGAT  
TTATGTGTTAGAATAAATTCATGAAATTCGATTCCAAGCATACGAAAGATGCCTAAAGTTGATTCTATGCTCCTT  
AGATCCAGACAGAAATAAGTAGTACAGGTTTATGAAATTTCAAAAGTTCTGTGCTCTTAAAAAGGAACGCTGAC  
TATATTTCTATCTGGCTGTTTAGATAACCCCTTCCCTGTATTAATGTGAGCAGGGAGCTCACTGGTGGGGGAG  
TTCTGAAACTCTCTGCCCTCTCTGTGTTGAATGAAGATGTGCAAGACTTGCACAAAGGAGGTTATTCTTCTGAC  
AGCATCAACTTTTAGAGATGGTCTTTTTCATCTTTCCAATTCAGTTACTTGACAGTCTCCTTCCCCAGTATGCT  
GAAGTTTGTAAAGAGTCACACAGTAATTTGTGCTTTTCAGACAGTAGTGACGCTTCAAATCGAGGCCATCACTGGG  
CTGATGGGCTGGGAGAACCTTGCCATGTGCCTGCCTGTTTCTGCCCTTCTAGTCACTGCCCATTCTCTGCCCTT  
TTGGTCGCTGACACACCTTCAACCAAGTGCCATGGTTCTGATGGTGGCAGTTCCATCTCCTTGACATCAGGAAG  
CTTTTCTCGATCAGAGCAGGACGGGGCCCTGCCTGCCCTCGTGCACTGGATTTCTTCTTTATAATCAGCTGAA  
ACAGAGTTCTCAAGAACAGTAAACTCAGGTTCAAGAGTATTATGGAATAAGAAATGGTTTTCATAGTTTGGCTTTT  
CTATATAATTTCTCCCTCTCAAATGAAATATTCATTTTTTAGTGGAGTATTGACAGAGGAAGTTAAGGCA  
GAAATACAGCTTACACTGGCTTTTAAAAATGTAAAGCCAAATTTCCAACCGGACCCCAAATAGTACAGGTTGAACA  
TTCCGTTTCAACAATCCAAAACCCAAATGCTCCAAAATCTTAAACTTTGAGTCCAGCATCCGTCAGAAAGTGG  
AAAATTTTACACCTGCACCTATTGACAGGTGGCAGTTACAGTGCAATCAAACTTTGTTTCCATGCCCAAGATTA  
TTAAAAATATTGGATAAAATTACCTTCAAGCTATGTTGTATAAGGTGTATATAAAACAATGAATTTTGTGTTA  
GACTTGGGCTACTCCCAAGATACCTCATATATATATACAAAAATCCCCAAATCCAAAACATTTGAAACACTT  
CTGCTGCCACACATTTGGATAAGGAGATTTTGACCTATATCTAATATAAAGAAAAATGATATTTCTTTT  
TTTTTTTTTTTTGAGATGGAGTTTCACTCTGTTGTGCGCCAGGCTGCAATGGCACAACTTGGCTTACTACAA  
CCTCCGCTCCCTAGTTCAAGGGATTCCTGCCTCAGCCTCCAGGTAGCTGGGATTCACAGGACTGTGCCACCA  
TGCTGGCTAATTTTGTATTTTATGAGAGACGGGGTTTCGCACTGTGGTCAAGTGCTCTTGAACCTCTGACC  
TCAGGTGATCCGCCCGCTCAGCTCCCAACGTGCTGGGATTACAGGTGTGAGGCACCCTACCTGGCAGAAAATG  
TACTTTCTTTCTCAGAAATACTTTTAAAAAAAATGAAGGTTGAGGAGAAAAACATCTTGGAGAAGAGGCCCAT  
TAAAACTTTAAATATTTGATGAAGACCATTTTCTCGATTTCCTGTTTTTAACTATAGCAAGATGGGTTTTT  
TTCCAACAAAAATTAATTTAATATCTTTCCACTTGAAGATTTTAGGTTGTTTTCAATCACTTAATGAATATAAAA  
CTAAAGGAGAAAAGCCAACCTGAAATAATTTAACTTTATATGAACATTTTCGATAAGAGTTTGTGATTTTCT  
GTAGATAATATATTTGATCCAGAACTCAAGTGCATGGAAACATGATTTTGATTTTTTAAATCTAAAAAAAATAA  
AATTAATAATCATGCTTCCCTCTATTCGAGTATCAGTATTTTAGTCACAGAATGGTATTTATGTAAATTAATAAT

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**FIGURE 138B**

AGGTGAATGCAATGCAGGTAAGTGGTTTTGGAAATGGGAATGTCAGTGCCTTTATGTTGGGGAGTTGGAGCAGGG  
TATCTTTTCATCAATTAGAAGGAAAGTTTGAAACTTCTGATTACCTTTATGTTGGTTTCTCTTATTATTGTCTC  
TTGCTAGATCTGCTAAACCAACCCAGCTTGCTCAGAGATCTCATATTGAAGCAACATACAGGCAATCCACATCTT  
TCTTTCCCTTTGAAGTATAGTCATTGGATGGGATGAGGGACAGGGCCTGTTGGGTTACAGGGCCTTGCACTGCA  
TGGGCACATACTTAAAAGCTCTTTGTGCATGGAATCCCTGTCTGTTAGCCACAGGCCTCTTTAGCTCTATACATT  
AAAAATACTACTGTAGTAGAAAAATAGATAAGCTTCAGCTGAGTTGGCTTTTGATAGTGGAAAAAACAATAATT  
GACTTTTTATGGCCAAAATTCTTGTGTACAGCTGTGATGTTCTAAATAGATTGGGAATATGTCAGTCTACAGA  
ACCTGCATCCTGTAAAAACACCTTTGGGGTAGACGATAAAAGTCATTTTTAAGGCAAACTTACCATTGACTT  
TTTATTACCAAAATGCATCAGTAGTGGAGCTGGTATGTTGTTTCATAGGATGGAAACATTAGAAGTCCAGAGAAAA  
ATAAATTTTAAAAAAGGTGGAAAAGTTACGGCAAACTTGAGATTTCAGCATAAAATCTTTAGTATGAAGTGAGA  
GAAAGAAGAGGGAGGCTGGTTCTGTTGCTCGTATCAATAGGTTATCTGTGTCCTCATCTTGGTGTACAGTGTT  
ATTTCTGTCAGTATTATGAATATGTGGTTGACCCATCCTGTCAAATGTACCAACATTTTCGAAAGAATTCATTCA  
AATCTCTTATGCCAACAGAAAAGTTCCTTCTTGTGTTAATATCTCTTTACCTCAGTCCTACATTTTGATTCTCTGG  
AGGAGATTTTAGCTTGTCTTAAAAAGCCAAATTTGGAGTCATCAAGCCTGCTGAACCTGATGGGGCAGCTTTTTG  
AACAGCTTCTGGAAGTAAGAACTTCAGTTGAAAAGCCCTTTGATCGCTTCAGCCCGGACATGCCCTTCAGATG  
GCTTATTCTCAGTAAAGCTTTATGTAGACTGTGACACTGTATATGTGTGACTCGTACAACCTTTGACGTGTTCTG  
AAGTGGTTTAAATCGTATTGTATTAGCTTCTTTGTGGAAATGCAATTTTTTACTAAAAACATTGCTTATTTCG  
AATGCAATATGTTATAAATTTGTTGTTTATATTACTGGTATTAGTCTTAGCCTAATGAACCTAATTATTTTCTT  
TCTGTATTCTTTGCTTCCTCAAATAGCATCTGCAGCAATTGGAAATGAGAAATCCAGATATGTTGTTCAAGTAGTA  
CATTGCCCTGAATCACAATCACTTGATCAGCAGTATTGTATATAATCCCTGATCCTATTGTTTCATTTTATGTGA  
AATTCCTATTGTCATCAAAACCTAATGATAGTGATTGGTAAGTAAAAACAATGGTGTATTGCTTTTCATACAAG  
TGTTTTACAAAAAGCCATTGCTTAGGCAGCAAAAAATTTAATTTGTT

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**FIGURE 139**

CTGAAGATGGCGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCGACATGTGAGTGCCATTCTTGGGGC  
ATTTCGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC  
AGTCAAGCAAAATTATTACGACCCAGTTCCTCATGCCATGCACCTGCTGTACCCAGCATGCACCCTATTTTAAG  
GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTGGTGCTTTTC  
TTCTATCCTTTGGATTTCACCTTTGTGTGTCTACAGAAATGTTGCTTTTAGTGACAAAGCTAACGAATTTTCAC  
GATGTGAACGTGTGAAGTTGTGCGAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCTGGATAAAATACACCAAGA  
AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTCAGACTTAACTAAGCAGATTCCCGAGACTACGGT  
GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTG  
AGCGTCAACGATCTCCCACTGGGCCGAAGCGTGGGAAGAAACCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA  
ACACATGGAGAAGTCTGCCAGCGAACTGGACACCGGATTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA  
GAGTACTTTCAGAAGGTAAATCAGTAGATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACACAGT  
TGAAACCTGCTTTTATCATTTTCAAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTCATAAGT  
ATTACTCTAAATGTTTTGTTTTGTAAATTCGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG  
TTTATTGGTAACATCTTGGTGGCTGGCTAGTATTTCTACAGAACATAATTGCGCTCTATAGAAGGCTATTCCT  
AGATCATGTCTCAATGGAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCTATAATAAGTAGAGCAACAC  
ACATTGAAAGCTTCTGATCAACGGTCTGAAATTTTCATCTTGAATGCTTTGTATTAAACTGAATTTTCTTTTA  
AGCTAACAAAGATCATAATTTTCAATGATTAGCCGTGTAACCTCTGCAATGAATGTTTATGTGATTGAAGCAAT  
GTGAATCGTATTATTTTAAAAAGTGGCAGAGTGACTTAACTGATCATGCATGATCCCTCATCCCTGAAATTGAGT  
TTATGTAGTCATTTACTTATTTTATTCATTAGCTAATTTGCTATGTATTTCTAGATATTGATTAGTGTA  
TCGATTATAAAGGATATTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTCTTTGCTGAAGTATTC  
ATTGTAAAACATACAAATAACATATTTAAACAAAAA

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**FIGURE 140**

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRISLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT  
AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTEIVAFSDKANEFHDVNCEVVAVSVDSHFSLAWINTPRKN  
GGLGHMNIALLSDLTKQISRDYGVLLGSGLALRGLFIIDPNGVIKHLVNDLPVGRSVEETLRLVKAFQYVETH  
GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

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**FIGURE 141**

ACTTGGCCTTACACTCCGCTCGGCTCACCAATGTGTCACTCTCGAGCTGCCACCCGACCATGACCATCCTGCAGG  
CCCCGACCCCGGCCCTCCACCATCCCGGGACCCCGCGGGGCTCCGGTCTTGAGATCTTCACCTTCGACCCCTC  
TCCCGGAGCCCGCAGCGGCCCTGCGGGCGCCCGAGCGCTCTCGCGGGCACCGAAAGCGCAGCCGAGGGTCT  
CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTGCGGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA  
CCCGACTCCAGAGCCTCGACCTGACCTGTCTCCTGTTTGTCTCCCTTAGTCCGGCGCCAGCTGCCAGTGCAGG  
AACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG  
GTGTGCCGGCGCCCTGCCCTCCAGAGGACGCCCTAACGCCGCATCCCTGGCGCCACCCCTGTGTCCCCGTCC  
TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCCTCCAGCAACCCCGG  
CCGCCTTCTAACTGTGACTCCCCGCACTCCCCAAAAAGAAATCCGAAAAACCAAAAGAAACACAGGCGTACCTG  
GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCACTTGAACTCAGAACACTACAGCGGAGACGCCACCC  
GGTGCTTGAGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCAGCTGGGCTAGGC  
CGGTGGGAAGGAGAGCGTCGTAAATTTATTTCTTATTGCTCCTAATTAATTTATATGATTTATGTACGTCCT  
CCTAGGTGATGGAGATGTGTACGTAATATTTATTTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA  
TGCAGGTCTCTTGGTATTATTGAGCTTTGTGGGACTGGTGAAGCAGGACACCTGGAACCTGCGGCAAAGTAGGA  
GAAGAAATGGGAGGACTCGGGTGGGGGAGGACGTCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTGA  
GAGGTGACTGCATCCTCCAGCATCTCAACTCCGTCTGTCTACTGTGTGAGACTTCGGCGGACCATAGGAATGAG  
ATCCGTGAGATCCTTCCATCTTCTGAAGTCGCTTTAGGGTGGCTGCGAGGTAGAGGGITGGGGTTGGTGGGC  
TGTACGGAGCGACTGTCTGAGATCGCTAGTATGTTCTGTGAACACAAATAAAATTGATTACTGTCTGC

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**FIGURE 142**

MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR  
SGHSRCALPWSHWGTTTLQSLDLTCLLFCLPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPPED  
APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF

ATGGCAGAAGGTGTGAATGAGCCTTGTTCCTCCGGGGGACTGTGGCATATTTTGTCACTAAAGTGGACAAAGGAAGC  
ATTGCTGATGGCCGCTTAAGGGTCAATGACTGGCTGCTGAGAATCAACGATGTGGACCTCATCAACAAAGGACAAG  
AAGCAGGCCATCAAGGGCCTCTCTCAATGGGGAGGGGGCCATCAACATGGTCGTGCGCGGAGGAAGTCCCTGGGT  
GGGAAGGTGGTCACGCCCTGCACATCAACCTCAGTGGACAGAAAGACAGTGGCATCAGTCTGGAGATGTGGAGTG  
TATGCTGCGCCTGTGCTGAGCGCCCTGCCCTAAAGAAAGGGTCCCTTGTGCTGGGAGACAGATCGTTGGC  
ATCAATGGCATTGCACTGGACCAACAGTCTCTGAATGAATGTGAATCTCTGCTGCGGAGCTGCCAGGACTCCCTG  
ACCTGTCCCTCTGAAGGTATTCCTCAGAGCTCTCTGGAGTGGCCAGAACATTTTGAAATAATCAAAAGAC  
TCTGATAAGATGCTGAGTTTTCGAGCCCATGGCCCGGAGGTCCAGGCTCATAAACAAACGGAACCTTGATACAGCAC  
AATAACTCCACGCAGACAGACATCTTCTACACGGACAGGCTGGAAGACAGGAAGGACCAAGGCCAGGCCCTTCAGGCG  
AGCAGCTCTCTTTCATCAAGGCATTCCTTGGGGGACCTTCAGGCTTCGCCCCAGGCGTGTCTCCAGTGCCTCT  
GAGCGTAGCCTGAGCTCTCTCCGCTCAGATGCCCTCTGGGGACCGTGGCTTTGGGTGGTGGAGCTGCTGGCCGG  
CGGCCACTGCTGCCCTTTGAGACCGAGGTGGGCCCTGTGGGGTGGGGAGGCTCCCTGGACAAGGCAGACTCT  
GAAGGCTTCAACAGCGCGCGGACCTGGCCCAAGGCCATGCTCAGCTCCACGGCAGTGCCTGAGAAGCTCTCTGTT  
TATAAAAGCCAAAGCAAAGAAAGTCCATCTTTGACCTTAACACTTTCAAACGCCCCAGACACCCCCAAATA  
GACTACTCTGCTTCCAGGCTCTGGCCCTGTCTACTCTCCACAGCCCTCAAAGAGGCGGGGCCCTCTGACACCCCCA  
AAACCTCCCAAGAGCGGACCTCCATTAAGTTTCCAGCAGAGGCTGGAGACTGCTCGAGTCAAGAGGCCATCTGT  
GTGGGAGCTCCCATCCACTAGTCCCGGAGCGCCTGCCCTTGACGTGGACCCGGGGAGCCCATGCACGCA  
TCAACCCCTCGCAAGGCGAGGTCGCGATTGCTTCCAGTACTACCTGAAGGAGATGGGAGCTCTCCCACTG  
CCGCCCAAGAAATCTGTGATGAGGACCTCACTCCCAAGAGTGGATGAGCTGGGGGAGCAAGCGCTCCCGGCCA  
AAATCTGCTCCAGTTTTCGGCGGAAGCTTGCTCAGTAGTGATTCTCTGCTCAGTTCTCGGAGGAACAGAAAGT  
GTCCCGGCAGTGGAGAACTCTCCCGAGCTCCAGGATGGGCACCTTACTCGCTGGGCATCTCCAGCCGCGAC  
AGCAACCCCCCTATACCTTAGCAGGCGCTGTGTGGTACTGTTCCCGGAGTTTGACCCCCAGCACCACTGTG  
AGCTCATCTGCTGCGGAACCCCATCTACACTGTGCGCAGTCACAGGCTCGGCCCTTGAGCTCTCCACCTGCGGCC  
CGAGATGCTGGCCCGGAGGTTTGATCCAGCTGCCAGTGTCCAGCACAGGACGCTGAGCTGGACCTGAGCCACAGG  
ACCTGCAGCGACTACTCCGAGATGAGAGCCACCCATGGGTCCAACCTACTGCCCCCAGCGCCGCTGGTTCT  
TCGAGTAACCTGCGATTCAAGCGGAACGCATTAAATCCCATCAACACAAGATATCCGCGGAGTGTGCTGGGG  
TCCGAGAGAGGTTAGTGTCATTTCTGAATGCAGCACTCTCCACAGTCAACCTGAACATCGACACCCCTGTCC  
TCTTGTAGCCAGTCCAGACCTCAGCTCCACATTGCCAGAAATCGCTGTCAACCCCGCGTCCCTCGGGAGCGG  
AGAAAGGACAGGCCCTTATGTGGAGGAGCCACGCCACGTGAAGGTGCAGAAGGGCTCAGAGCCGCTGGGCATCTCC  
ATCGTGAGTGGAGAGAAGGGCGCATCTACGCTTCCAAGGTGACCGTGGGGAGCATCGCTCAACAGGCTGCTCCT  
GAGTATGGGGATCAGTTACTGGAGTTCAACGGCATAAACCCTGCGGAGCGCACGAGCAGCAGGCGCGGCTCATC  
ATCGGCGCAGCAGTGTGATACCATCACCATCTTGGCCAGTACAACCCCCAGTGCACAGCTCAGCAGCCACTCC  
CGGTTCAGCTCACACCTGAGACCTCGCGGTACCCACTCTCCAGGGCAGTGGCCACCAACACCCGAGCAT  
CCATCTGTGATCGACCCATGTGAGGACAGGACGAGGGGCTAGCACCCCCAGCAGCAGCAGCTCCAGG  
ATTGCGGAGATGTCCAACAAGAGTACGCTGGAGCCACGCGTTGTCTTCAATAAAGTCCAGCTGAGGCTGTGGG  
GTGCACTTGTGTGGTGGGAACCTGCATGGGGTGTGTGTGGCCGAGGTGGAGGATGACAGTCTGTCCAAGGTCTCT  
GAGGGCTCGTGCCAGGGGACCTATCTTGGAGTATGGCAGCTGGAGCTGCGGAAACAAGCAGTGGAGGAAGTCT  
TATGTGGAGATGTGAAGCCAGGGATGGCGTCCGCCGTGAAGGTGCAAGTACCGCTTACAGGAGTTCACGAAGGC  
AAGGGCTGCTTGGTGACAGTCTTACATCAGGGCCCTGTACGACCGGCTGGCAGATGTGGAGCAAGAGTTGAGC  
TTTAAGAAGGACGACATCTCTACGTGATGACACTTACCCAGGGCAGTCTCGGGTCTCTGGATGGCTTGGGAC  
CTGGACGAGAATGCCCCAGGCTCAGCGCGGGCAGATTCACGACAAATATGTGATGGACCAAGAAATCTCCAGG  
AGGCTCAGCATGTCTGAAGTCAAAGATGACAATAGCGCCACAAGACGCTGTGACGGCTGACAGCGCGTCTTT  
TTTCGGAGGAAACACAAGCACAACGACAGCGGGTCCAAGGACGGGAAGACCTGCTCGCCTTGGATGCTTTTTCC  
AGTGACCTACTTCACTCTTTGAAGATTCGGTGAGCTTGGCCTACAGCGGCTCAGAAGGTGGAGTGCACCGCT  
CTGAGCGCTGTCTTATTCTGGGGCTTTTGTGGACGTGGTGAAGGAGATGCTGGTGAATGAGGCTCTCGCAAG  
TTCTGCAGATGTCCTTGGAGTGAAGGCCCTCCAGCAGGCCATTGACGGGGTGTCAAGATGCTGCTTTT  
GTGCACTATAAGCGGAGAGCGGCATTTTCATGTGACCACTGTGGCTCAATAAAGGAGATCACAAGAAAGAAC  
CGACATGCTCTCTGGACATGTCTCCGACGCTATTGAGCGGCTCACCACATGCACATACCCCATTTGTCATC

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**FIGURE 143B**

TTTCATCCACTACAAGAGCGCCAAGCACATCAAGGAGCAGAGAGACCCCATCTACCTGAGGGACAAGGTGACTCAG  
AGGCATTCCAAAGAGCAGTTTTGAGGCGGCGCAGAAAGCTTGAGCAGGAGTACAGCAGGTACTTCACAGGGGTCAATC  
CAGGGAGGAGCCCTGTCAAGCATTTGCACTCAGATCTTGGCAATGGTCAATCAAGAACAATAAAGTCCTGTGG  
ATTCCAGCCTGCCCCGCTCTAGGAGAATGCTGTGCTGTGGATGACTGCAGCTGGCCGCTGAGGGGACGCCAGACT  
CAGCTCTTTTCTAGCGACTGAAAGTAGAAGTCTGTCTGTCTATGAACATGCGGGGGAAGGATCCGGAACCCAGGAC  
CCAGAAGCACCTCCTTTGTAGACAGAGGGCCACGGCTGCGTGCATCCAGGCCACAGGCCACACACTCTGCCCGT  
GTCACACGTGTGCTTTAACACAAAACAGATAAACCTAAAGACGGGTTACAGACCCACCTTTCTTTAGCCAGCTGA  
TCAGAGATGCTGCAAGAGAACCTTTTCGGATCACTCGTTTTACAAGCCTTTTCTAAGTATTTGGTGGTTATGTTTT  
ACTTGAACGGCTCCATGTTGCCGTGCCAGCCCTGTCCCTCTGTCAACCCCTGTGCTTTGGTGTGGTTTT  
CGTTCGCTCTTCAGCAAAACGACCTTGGAACTCAATGGGGCTGCTTTGCTTTGGGAGGTTCTTGTGGTGGG  
ACCAGAGCTTTGACAAACCTCCTGCTCCTTGGTGGCACCTCTCCTGGAAGGACATCACAACTCCAGGTGCTCAGA  
CTGCCTGTGGCAGCAGAACCAAGTGCCTTTGGCATTTCCTCCCAATGGGGAAGGTGACTTTGGCATCTTTACA  
AACTCGTCTCTCGGCCTTTCTCTCTGCTTCCACAGCCTCTCGTTTCTCCTCCATCTGTGCTTATTACTTGAGG  
ACTGTGTCTGCTCCGTGAGAGCTGCGTGGGCAGGCTGCAGTGGGTCAGGTGGTGTTCAGCTGTGCTGATGCC  
TGCCATTGGGTCTCCTTAGGCTCTGTAAGTCGTGACAGCCTTCATCAGTGAATGTTTGCAGGGTAATCTTAA  
ACTTTTTAGAGGGTGGCAGGTACATCAGTTCTTTTTGATATGAAAACATTCAATGTTTCAGACATTGAATTGAGAG  
CTTTTAGGGGAAGCATAATGGTTATTGTCACTATCAACAGTCTAAAAAGAAAACCTGAGGTCTTTTAACTCTGA  
TTACAGCACTCACGGCATGCACCCCTACTCAGTGTGGGTGCTTCGTTTGGGGGCTTTTTTTTTTTTGCACCTCT  
GAGGCTAGATATGCTGCTGAAGATTGATGTGGTTCCTCCTTAAGCTATCGCTCCTGTTAATAATAGGTACTG  
TACTGGGCTCTGTGTAAGTGTGCTTGGGGTAGGACCTATATTTTAATACTGTTCCTAACATTTCAITTTACTAGC  
GAGAAATCTTGATTTCATTTTATTCTTTGTAATCTAGACACTAGATTGTAGTTTAGCCATAACTGATGTTTTT  
TAAAAAGGGATATATTTTCTTGACAGTTGTTCAAAAAAGAGACAAGTTTACAGTCTCAATGCTGTCCTTTGTTTT  
TACAGGTACAAGTTTTCTAGCTCAGACAACTATGAAAACTGTAGACTATTCTCAAGGTATTAACCTCGCAGACC  
CTCTGGGGGTAGGGGCTGTTTTCTAAGTTACAGGCAGAGTGGGACTGAGATGGTACAGTGTGCACAGACAGGTAC  
TGAGCTGACAGACTGGGATTTTCTGTACTAAAATGTTACTTTGTATCAAAAGTTAAACAGGCTTTAGTACAACAA  
ATAAAGGTCAATTTCTGT



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**FIGURE 144**

CGCAACGCCGGTGCCTGAGGAGCGA**ATG**CCGAGGGAAATCATCACCTACAGTTGGGCCAGTGC GGCAATCAGATT  
GGGTTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGGTATCAGCCCCGAGGCGATCGTGGAGGAGTTCGCCACC  
GAGGGCACTGACCGCAAGGACGCTCTTTTTCTACCAGGCAGACGATGAGCACTACATCCCCCGGGCCGTGCTGCTG  
GACTTGGAAACCCCGGGTGATCCACTCCATCCTCAACTCCCCCTATGCCAAGCTCTACAACCCAGAGAACATCTAC  
CTGTCGGAACATGGAGGAGGAGCTGGCAACAACCTGGGCCAGCGGATTCTCCAGGGAGAAAAGATCCATGAGGAC  
ATTTTTGACATCATAGACCGGGAGGCGAGATGGTAGTGACAGTCTAGAGGGCTTTGTGCTGTGCTCACTCCATTGCT  
GGGGGGACAGGCTCTGGACTGGGTTCTACCTCTTAGAACGGCTGAATGACAGGTATCCTAAGAAGCTGGTGCAG  
ACATACTCAGTGTTTCCCAACCAGGACGAGATGAGCGATGTGGTGGTCCAGCCTTACAATTCACTCCTCACACTC  
AAGAGGCTGACGCAGAATGCAGACTGTCTGGTGGTGTGGACAACACAGCCCTGAACCGGATTGCCACAGACCGC  
CTGCACATCCAGAAACCCATCTTCTCCAGATCAACCAGCTGGTGTCTACCATCATGTTCAGCCAGCACCAACC  
CTGCGCTACCTGGCTACATGAACAATGAACCTCATCGGCCTCATCGCCTCGCTCATTTCCACCCCAAGGCTCCAC  
TTCTCTATGACCGGCTACACCCCTCTCACTACGGACCAAGTCAAGTGGCCAGCGTGAAGAACCCAGGTCTGGAT  
GTCTATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTGTCCACAGGCCAGACCCGACCAACCACTGCTAC  
ATCGCCATCTCTCAACATCATCCAGGGAGAGGTGGACCCCAACCAGGTCCACAAGAGCTTGACAGAGGATCCGGGAA  
CGCAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGCATCCAGGTGGCCCTGTGACAGGAAGTCTCCCTACCTG  
CCCTCGGCCCAACCGGGTCAGCGGGCTCATGATGGCCAACCAACCAAGCATCTCTCGCTCTTCGAGAGAACCTGT  
CGCCAGTATGACAAGCTGCGTAAGCGGGAGGCCCTTCTGGAGCAGTTCGCAAGGAGGACATGTTCAAGGACAAC  
TTTGATGAGATGGACATCCAGGGAGATTGTGCAGCAGCTCATCGATGAGTACCATGCGGCCACACGGCCAGAC  
TACATCTCCTGGGGCACCCAGGAGCA**TCAG**CTCCCCCAGGACAGGGGACCCTCATCTGCCTTACTGGTTGGCCCA  
AGCCCTGCCTGACTGACCACCCCTCAGAGCACAGATCAGGGACCTCACGCATCTCTTTCTCATATACATGGACT  
CTCTGTGGCGCTGCAACACATTTACTTCTCCTCTTATGAGACTATTTATCTTTAATAAGCACTGGG

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**FIGURE 145**

MPREIITLQLGQCGNQIGFEFWKQLCAEHGISPEAIVEEFATEGTDRKDVFFYQADDEHYIPRAVLLDLEPRVIH  
SILNSPYAKLYNPENIYLSEHGGGAGNNWASGFSQGEKIHEDIFDIIIDREADGSDSLEGFVLCHSIAGGTGSLG  
SYLLERLNDRYPKKLVQITYSVFPNQDEMSDVVVQPYNSLLTLKRLTQNADCLVLDNTALNRIATDRLHIQNPSF  
SQINQLVSTIMSASTTTTLRYPGYMNNDLIGLIASLIPTPRLHFLMTGYTPLTTDQSVASVRKTTVLDVMRRLQP  
KNVMVSTGRDRQTNHCYIAILNIIQGEVDPQVHKSLQRIERKLANFIPWGPASIQVALSRKSPYLPSAHRVSG  
LMMANHTSISSLFERTCRQYDKLRKREAFLEQFRKEDMFKDNFDEMDTSREIVQQLIDEYHAATRPDIYSWGTQE  
Q

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FIGURE 146

AGATAACAGAGTAATCCACAGACTTAAAA**CATGA**GCTCAGATGCCAGCCAAAGGCGTGATTACCACTCCTCCTCC  
TCCAGCATGCCCTCACAAGAGAGATATTTTACCGCATCAATGAAAAATGACCCAGAATACATTAGGGAGAGGAA  
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCTCGCAAAGTCC  
TGCCTTTGGGGAAGACTTGGAAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAATCGGATTACTAGC  
ATTACAGCAGATTGCAGATTACATCATGGCCAAATCTTTCTCGGGTTTTTCTTCACTCCTCTCAGTCTTGGCAT  
GGTCACACCTATCAATGACCTTCTCGGTGCAGATACATCTCATATGTGAAGGGGAGAAAACTTACTCGCTGTAA  
ACTTGGCAGCCTGTACAGACTTGTGACTTGTGGATGGGCACACTGGCAAATACCTATATCTCAGTAAGAAT  
AAGTAAGGAGCAAGACCACATTATAATAATTTCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT  
GAAAGTCAATATAATAGGAGAAGTGGTGGACAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCAGTCC  
CCATGCTGCAATCTATTCAACAGCTCTCTGATGTTAAGTGTGTCATACACATCCATACCCTTGAACAGCAGCTGT  
ATCTCCATGAAATGTGGGATCTTCCAATTTCTCAAGAGTCTCTCTTCTGGGAGATGTTGCCTATTATGACTA  
CCAAGGTCACCTTGAAGAACAGGAGGAGAGAATCAACTGCAGAAAGTTCTGGGACCAAGTTGTAAGGTGCTGGT  
ACTCAGGAATCATGGTGTGGTTGCACCTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTTAATGTGCAACT  
AGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAAATCTCCATGTAATGGACTTTAGAA  
GTATAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTAATATGGGTTCCCATCAAAAATGGAA  
GGTTGGCGAAATTGAGTTGAAGGGCTTATGAGGACTCTGGACAACCTTGGGGTATAGAACAGGCTATGCTTACAG  
GCATCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAATCCAGCAACTGTGACTGCTTTTTCTCT  
TGAAGACGATACAGTGCCACTCTCTCTCTCAAAATCATGGCACAGAGGCCAACGCGTGAAAAACAAGATGGCT  
GAATCACCAAATACTTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGGAGAAACAGTCCCCGAAACCA  
AATCAGCTGGATGAAGCAGAAAGCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTTGAAGATCCAAATCA  
GTTTGTCTCTTTAAACACAAACGCAATGAGGTACTAGAAAAAGAGAAATAAGATTCCGGAAACAAATCGATATGA  
CTTGAAACAGCAGGACCACAATCTCAGTTGCTTCTGGAATTTGTTGGTAAAGCCACTTCTACTATGCAATT  
TGAAGATGATGATCATGGCCACCACTCTCTCTAACCATTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA  
TAAGAGGACAATCGAACGTAACCAACAGGCCCTAGAAGATGCTGAGCAGGAATTAATCTCAGATGACGCTTCTATC  
TGTTTCAAAATTCAGTCTCAAACTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAGAAAAACCATGAGCTGTT  
TTCCAAGAGCTTCATCTCCATGGAAGTGCTGTATGGTAGTAATGGCAAGGATGATATGCATGATGTTGAAGA  
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAAGTACAACCATAGAAAAACATCAGATTACTATTAAGTCTCC  
AGAGAAAAATCGAAGAAGTCTGTCACTGAAGGCTCCCTTCAAAATCGCCATCCAAGAAAAAGAGAAATTCG  
CACTCCTTCTTTCTGAAAAAGAACAAAAAAGAGAGAAAGTTGAGGCC**TAAAT**AAGTCTTTTTATAATTATTA  
TTATAACAATGTGACATTGCACATCTAAATACCAATTTAAGTTGATCATTAAATGCAATGGTAGATCAGATTG  
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAGAGGTTTTACAAAAAGAAAACTTTCAGATTCTATCTCTAT  
TTTATATGTCCAGAAATGGCTTTGAATTTTAAGCAATTAAGTTTAAATAGCTCTGCCCTCATGAAGTATTAT  
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTC  
CAGTGAGCAAGTGAGAAATTTTATTTCTCAATACCTGCTTCACTTGATAATCATATATAATTTTTATCATGAT  
TATTGACTATATTTTTGAGGATCCCATGTTTCAGTGGGCATTAAAGAAATGCTTTAAAACTCTTAAGACAGAA  
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCAATTTGGAAATTTATCA  
CAGTATAAAATTTCTCACTCGAAGTAACTTTGTGGCCAAAAAGTTGTTTTAATAAATAATTTTTGAAAA  
CTTCTTTTTTATTAGTTTGAAGAGCCCTTATTTTTCAACAAGGGGATTTGTACACATAACATCGGTTATTT  
AGTTTAACTCTGGC

**FIGURE 147**

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL  
FGWAHLANTYISVRIKEQDHI I I I PRGLSFSEATASNLVKVNI IGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHLATAAAVSSMKCGILPISQESLLGDVAYYDYQGSLEEQEERIQLQKVLGSPCKVLVLRNHGVVALG  
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVNDLHVLDQKYKAFTYTVAASGGGGVNMGSHQKWKVGEIEFEGLM  
RTLNLGYRTGYAYRHPLIREKPRHKS DVEIPATVTAFSFEDDTVPLSP LKYMAQRQREKTRWLN SPNTYMKVN  
VPEESRNGETSPRTKITWMKAEDSSKVS GGTP I KIEDPNQFVPLNTNPNEVLEKR NK IREQNRYDLKTAGPQSQL  
LAGIVVDKPPSTMQFEDDDHGPPAPPNPF SHLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTS  
PQNVP E KLEENHELFSKSFISMEVPMVNVNGKDDMH DVEDELAKRVSR LSTSTT IENIEITIKSPEKIEEVLSP E  
GSPSKSPSKKKKKFRTPSFLKKNKKKKEVEA

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FIGURE 148

AGATAACAAGAGTAATCCACAGACTTAAACATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC  
TCCACGATGCCTCACAAGAGAGATATTTTACCAGCATCAATGAAAAATGACCCAGAATACATTAGGGAGAGGAA  
CATGTCTCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCTCGCAAAGTCC  
TGCCTTTCCGGGAAGACTTGGAAATGCCTTATTCAAGAACAGATGAAGAAGGCCACAACCCAACCTGGATTACTAGC  
ATTACAGCAGATTGCAGATTACATCATGGCCAATCTTTCTCGGGTTTTCTTCACTCCTCTCAGTCTTGGCAT  
GGTCACACCTATCAATGACCTTCTCGGTGCAGATACATCTCATATGTGAAGGGAGAAAAAATCTACTCGCTGTAA  
ACTTGGCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAATACCTATATCTCAGTAAGAAT  
AAGTAAGGAGCAAGACCACATTATAATAATTTCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT  
GAAAGTCAATATAAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCACTCC  
CCATCGTCAATCTATTCAACACGCTCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTCT  
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTCTCTCTGGGAGATGTTGCCTATTATGACTA  
CCAAGGCTCACTTGAAGAACAGGAGGAGAGAATCAACTGCAGAAAGGTTCTGGGACCAAGTGTGAAGTGTCTGGT  
ACTCAGGAATCATGGTGTGGTGTGCACTTGGAGAAAACATTAGAGGAGGCTTTTCATTTATATTTTTAATGTGCAACT  
AGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGCAGGTGAGTAGACAATCTCCATGTACTGGACTTTCAGAA  
GTATAAAGCTTTCACTTACACTGTAGCAGCGCTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA  
GGTTGGCGAAATGTAGTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG  
GCATCTCTCATTTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAATCCAGCAACCTGTGACTGCTTTTTCCCT  
TGAAGACGATACAGTGCCACTCTCTCTCTCAATACATGGCAGAGGCAACAGCGTGAAAAACAAGATGGCT  
GAATCAACCAATACTTACATGAAAGTGAATGTGCTTGAGGAGTCTCGGAACGGAGAAAAACAGTCCCCGAACCAA  
AATCAGCTGGATGAAAGCAGAAGCACTCATCAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAAATCA  
GTTTGTCTCTTTAAACACAAACCCGAATGAGGTACTAGAAAAAGAGAAATAAGATTGCGGAACAAATCGATATGA  
CTTGAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTTGTTGGTATAGCCACCTTCTACTATGCAATT  
TGAAGATGATGATCATGGCCCAACGCTCCTCCTAACCCATTTAGTCATCTCAGAGAAGGAGAACTTGAAGAGTA  
TAAGAGGCAATCGAACGTAAACAACAAGGCCCTAGAAGAAAACCATGAGCTGTTTTCCAAGAGCTTCATCTCCAT  
GGAAGTGCTGTATGTTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGATGAGCTTGCTAAGCGAGTGAG  
TAGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCCAGAGAAAAATCGAAGAAGTCCT  
GTCACCTGAAGGCTCCCTTCAAAATCGCCATCCAAGAAAAAGAGAAATCCCGACTCCTCTCTTTCTGAAAAA  
GAACAAAAAAGGAGAAAGTTGAGGCCATAAATAAGTCTTTTATAATTATTATTATACAATGTGACATTGCA  
CATCTAAATACCACATTTAAGTTGATCATTAAATGCAATGGTAGATCAGATTGGGGGATGTAGCAAACTGGACT  
TTAAGAACTGGAAAGAGGTTTTACAAAAAGAAAACCTTCAGATTCTCTCATTTTATATGTCCAGAAATGGCT  
TGAATTTTAAAGCAATTACTAGTTTAAATAGCTCTGCCCCATGAAGTATTATTAATTTACCATAAAACAGCT  
ATCTGCTGAATTACTTCAGGCGCTTCCATAATATCTGTTAGAAAGAAATGGCCAGTGAAGTGAAGAAATTTT  
TATTTCTCAATACCTGCTTCACTTGATATCATATTATAATTTTTTATCATGATTATTGACTATATTTTTGGAGT  
CCCATGTGTTTCACTGGGCATTAAACAGAAATGCTTTAAAAACTTCTAAGACAAGATCTATAGCATTAGTATACACT  
GGCACAATAATTTTAAAAAGTTTAAAGAAAAGATTCAATTGGAATTTTATTCAGAGTATAAAATTTCTCCTCACT  
GAAGTAACTTTGTTTGCACAAAAAGTTGTTTAAATAAATATAATTTTGAAGAACTCCTTTTTTATTAGTTTAG  
AAAGCCCTTATTTTTTCAACAAGGGGATTTGTACACATAAGATGGGTTATTAGTTTAACTCTGGC

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**FIGURE 149**

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTIQLQSPAFREDLECLI  
QEQMKKGHNPTGLLALQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGELTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHLATAAAVSSMKCGILPISQESLLGDVAYYDYQGSLEEQEERIQLQKVLGSPCKVLVLRNHGVVALG  
ETLEEAFFHYIFNVQLACEIQVALAGAGGVDNLHVLDFQYKAFITYTVAASGGGVNMGSHQKWKVGEIEFEGLM  
RTLNLGYRTGYAYRHPLIREKPRHKS DVEIPATVTAFSFEDDTVPLSPLKYMAQRQOREKTRWLNSPNTYMKVN  
VPEESRNETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRDYDLKTAGPQSQL  
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPMVNVNGK  
DDMHDVEDELAKRVSRSLSTTTIENIEITIKSPEKIEEVLSPEGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

TTTCCCGCGAAACTCGGGCGCTGAGCGTGGAGGTTCTTGTCTCCCTGGTTTGTGAAGTGCGGAAAAACAGAGG  
CGCAGTCATGTTCGGGATTGCAGCATCTGCGCATTTTCTACAGCAGCAGCTTCGGGGCGACGCCACGCCGCCGACGA  
GGGCGAGGCGCCGCAAACTGACGCTGCAGAGCGGCTTCAAGAGTCTTCGCGGACATCCAGGTGGGCACGCCG  
CACGGGCTTACCTTCAAATACAGGATGAATCAAGCGGCATTACAACCTGGGGGATATCTGGATTGAGGTGGA  
GATGGAGGATCTGGCCAGCTTTGATGAGGACCTTGCGCCACTTGTACAAAGCAGCCAGCCAGCTGCAGCT  
CTGCGAGAAGCTGCCAAAGAGGTAGCTGATAGAGTGACCCGCGCCCGCGCTCTTGGGAGAGAGGTCTCCAGGA  
CATTCAGGTCATGCTCAAGTCTGGACGCCGAGCCCTTCAGCATCTCGTAGGCTGAAGTCGGACATGATGTCTACACC  
TGCTGAAGATCCCTGGCATCATCATCGGCCGCTCTGCGGTCGCTGCCAAGGCCACCCGATCTCTATCCAGTGGCG  
CAGGTGCGCGCAACCCCTCAACCAATTTGCCATTCGCGCCTGGCTCGAGGGCTATGCCCTGCCAGGAAGTGCAA  
CACAGATCAGGCTGGACGCCCAAATGCCATTGATGCCCGTATCTCATATGCCCGCAAGATGCAAAATTCGGTGGA  
CTTCCAGACCTTGAAGCTCAGGAGCTGCTCTGATGCAGTCCCCACGGGAGATGCCAGACATCATGCAGCTCTA  
CTCGCACAGGTTACCTGTGTGACAAGGTCGTCCCTGGGAACAGGGTTACCATTATGGGCATCTACTCCATCAAGAA  
GTTTGCGCTCTACTACAGCAGGGGCGCTGACAGGCTGGGCGTGGGATCGCGAAGCTCTACATCCGTTCTGGG  
CATTCAGGTGACACAGATGGCTTGCGCCGAGCTTTCTGGGCGCTGAGAGCCCGAGGAGGAGGAGTTCGCG  
TCGCTTGGCTGCCCTCCCAAATGTCTATGAGGTCTATTCCAAAGCATCGCCCTCTCATCTTTGGGGGCACAGA  
CTAAGAAGAGGCATTTGCCTGCTGCTCTTTTGGGGGCTCGCGAAGAGGCTCTCTGATGACTTACTCGCGAGG  
AGACATCAACTCTGCTGATCTAGGGGACCTTGGGACGCCAGTCCCGACTTCTGAAGTTTGGGAGAAGTTGTC  
TCCCATTTGGGGTATACAGCTCTGGGAAAGGCAGCAGCCGACGTGGACTCAGACGCTCGGTGATGAGGAGCCCTTC  
TCGCCGGAATTTCTCATGTTGAGGGGCGAGGACATGGTCTGCGCCAGTGGTGGGGTCTGTATTGACGAGTTTGA  
CAAGATCTCGGAAGAATGACCGTTGTGGCAATCCAGACGCCATGGAGCAGGACCATCTCATCGCAAGGCTGG  
GATCACCCACCACCTGAATCCCTGCTGCTCGCTCTGCTGCTGCTGCAACTCAGTTGTTGGCGCGCTGGGATGAGAC  
GAAGGGGAGAGCAACATTTGACTTCTGCGCCACCATTCTGTGCGCTCTTCGACATGTTCTTCATCTGTCAGGATGA  
GCAAATGAGGTAGGGGATGTGATGCTGGCCAAAGCATGTCACTCTGACGTTGAGTGACATGACACAGACACA  
GGCTGTGGAGGGCGAGATTTGACCTGGCCAGCTGAAGAAGTTTATTGCTCACTCGCGAGTGAAGTTGTGGCCCGCG  
GCTGTACAGCAGGGCTGCAGAAACTGAAGAATCCGCTACATCATCGCAGAGGGGCCCTCAGCACAGAGAG  
CAGAGTCAACCGCTTCAGATCCCCATCTTCTGCGGACGTTGAGGACCATTTGCGCATTCGCGGAAGCCCTCAG  
CAAGATGAAGCTGCAGCCCTCTGCCACAGGACGATGTGGAGGAGCCCTCGCGCTCTTCCAAGTGTCCAGTGT  
GGATGCTGCTCTTGTCCGGTACCTCTCAGGGGTGAGGGCTTCAACAGCAGGAGGACAGGACGAGCTGTGAGCGC  
CATTCGAGAAGCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCAC  
CAAGCAGAAATACCCGGAAGCAGCCATCCAAAGGTTCTGACGCTCATCTGCGCGCGCGGAGATCCAGCATCT  
CATCGACGCAAGGTCTCTTACCGCCCTCAAGTGATCTGCGCGCTCAGTGGACTCATGGACTGCCACGCTGCCG  
CTCCTTGGCGCTGCTGCCATTGCAATTTGCTTGGGACCTCTGCCTCCCCTGACGCGCTCGAACTTCCCAGG  
CAAGCTCTTTTCTGCCCGAAGGAGGAGCTGTAGTTGTCTGCTGCTCTGCGCTTGGCGCGCGCTCTAGCGGGTCTTG  
GAGTGTGCTTTTGGCATCCGTAAATATAAAGCAGCGGTGTTCAGT

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**FIGURE 151**

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME  
DLASFDEDLADYLYKQPAEHLQLLEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSIRSCLKSDMMSHLVK  
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDCKCKVDFQ  
TLKLQELPDVAPHGEMPRHMLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ  
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI  
NLLMLGDPGTAKSQLLKFEKCSPIGVYTSKGKSSAAGLTASVMRDPSSRNFIGEGGAMVLADGGVVCIDEFDKM  
REDDRVAIHEAMEQQTISIAGAGITTTLSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN  
EVRDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRTGPVSTRGTV  
TASSIPITVRQLEAIVRIAELSKMKLPFATEADVEEALRLFQVSTLDAALSGTSLSGVEGFTSQEDQEMLSRIE  
KQLKRRFAIGSQVSEHSIIKDFTKQYPEHAIHKVLQLMLRGEIQHRMRQKVLYRLK



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FIGURE 152

ATATAACCGCGTGGCCCCGCGCGCGCTTCCCTCCGCGCAGTCACCGCGCGGTCTATGGCTGCGACTTCTCT  
**AATGT**CTGCTTGGCTGCCCGGCTGCTGCAGCCCCGCGCAGCTGCTCCGCTTCGCCCTTCCACCTCGC  
GGCAGTTCGAAATGAAGCTGTTGTCAATTCTGGAAGGAACTGGCCACGAGATCAAGCAGGAAGTGCAGGAGGA  
GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGTTGGCGAGAATCCTGCAAG  
TCACTCCTATGTCCCAACAAAACAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC  
TTCAATTCAGAGGAAGAAATGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCCTCCTTGT  
TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG  
CTTTCATGTAAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCATGTTACCGGCTACTCCATGGGGTGTGTG  
GGAAATAATCAAGCGAATGGCATTCCAACCCTAGGGAAAGAAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG  
AATGCCATTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCGCCGAGGTGATGCCACTGTTACAATATC  
TCATCGATATACTCCCAAAGAGCAGTTGAAGAAACATACAATTCTTGCAGATATTGTAATATCTGCTGCAGGTAT  
TCCAAATCTGATCAGCAGATATGATCAAGGAAGGAGCAGCAGTCATTGATGTGGGAATAAATAGAGTTCACGA  
TCCTGTAACTGCCAAACCCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAGCTGGGTATATCAC  
TCCAGTTCTCGGAGGTGTTGGCCCCATGACAGTGGCAATGCTAATGAAGAATACCAATTATTGCTGCAAAAAAGGT  
GCTGAGGCTTGAAGAGCGAGAAGTGCTGAAGTCTAAAGAGCTTGGGGTAGCCACTAAT**TAA**CTACTGTGCTTCT  
GTGTCACAAACAGCACTCCAGGCCAGCTCAAGAAGCAAAGCAGGCCAATAGAAATGCAATATTTTAAATTTATTC  
TACTGAAATGGTTTAAATGATGCCTTGTATTATTGAAAGCTTAAATGGGTGGGTGTTTCTGCACATACCTCTG  
CAGTACCTCACCAGGGAGCATTCAGTATCATGCAGGGTCTGTGATCTAGCCAGGAGCAGCCATTAACTTAGTG  
ATTAAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTCCGCTT  
TTCTAGGATTGCATTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC  
AACTGATCAAAACCAAGGAAAGTGTTGCTAGAGAAAAATTGGGAAAAAGTGAAAAAGAAAAAATGTTAGTAATT  
GAGCAGAAAAAAATTAATTTATATATGTATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA  
AAAAAGAAAACTGCATGTTAATCATTTTCCCTAAGCTGTCTTTTGGGCTTAGTCAGTTTATTGGGAAAAATGTT  
TAGGATTATTCCTTGCTATTAGTACTCAATTTATGTATGTTACCCCTCAGTAAGTTCTCCCATTTTATGTTTTCT  
AGGACTGAAAGGATCTTTCTACATTATACATGTGTGTGTCATATTGGCTTTTGCTATATACTTTAACTTCA  
TTGTTAAATTTTTGTATTGTATAGTTTCTTTGGTGTATCTTAAACCTATTTTGGAAAAACAACTTGGCTTGAT  
AATCATTTGGCGAGCTTGGGTAAGTACGCAACTTACTTTCCACCAAGAACTGTGACAGCTGCCTGCTTTTCT  
GTGATGTATGTATCTGTTGACTTTCCAGAAATTTTAAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT  
CTGATTAAGGGTTTTCTTTCTTTTAAATAAACACATCTGCTGGTATGGTA

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**FIGURE 153**

MSALAARLLQPAHSCSLRLRPFHLLAAVRNEAVVISGRKLAQQIKQEVQRQEEWVASGNKRPHLSVILVGENPAS  
HSYVLNKTAAAVVGINSETIMKPASISEEELLNLINKLNDDNDVDGLLVQLPLPEHIDERRICNAVSPDKDVG  
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS  
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQKAGYIT  
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

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FIGURE 154

CTCCACCGCGGCGAGAGGCACTGGGCACGTGGCTGCCAGGGTGGCCGAGCTCTGGGAAGAAAGCCCGTGTGCCCT  
CTGCATAGCGTCGCTACAGCGCTGACTCGGTGTGGATTGATTGGAAAGGTTTGAGGGAGTACTTTGGGAAGC**ATG**  
TGGCACATGATGAGACTGGAGGCTCTCTACCTATTAAAGAGGACCATACAGAGTCTAGATGTCATTAACCAAGCTCT  
TCAGAGAACAAGAGGAGGCCAAGCAATAAAAGAGTTCGACCTCTGGCTCGTGTACGCTCTTGCCAAATTTAATCT  
CTCCGTGAAGAAGTGGAGCTGTACAGAGCTTTTGGTCAAAACAATACAGTGATTACCCCTCGTGGTGACCACAGAT  
CCCCAGGCTCTGCCAGAAAGTTTCTAGCAGGTCAACAGTCCCAACACCCGCCAAGAGAAGGAGCAGTGCACGTG  
GGTCAGAGATGCTGGACATCACCATGAAGGAGTCTCTCACCACAGGAGATCAGACGGGACAGGAGCAATATATG  
AAATGTCCCGAGGTGAACAGGATTTAATTGAGGATCTCAAACCTGCAAGAAAGGCCCTACCATGACCCCATGTTAA  
AGTTGTCCATCATGTGCAGAAAGAGGAATCACACATATATTGGTGATCTGGACTCTTACATACCTCTGCATGAAG  
ATTTTGTGACAAGAAATAGGGAAGCAACCAAGCCTGATGGAACAGTGGAGCAGATTGGTCACATTTCTCGTAGCT  
GGTTACCGCGCTTGAATGCCTACAGAGGTTACTGTAGTAACCAAGCTGGCAGCCAAAGCTCTTCTGTATCAAAAGA  
AACAGGATCCAAGATCCAAGACTTCTCCAGCGATGTCTCGAGTCTCCCTTCAGTCGAAAACATAGATCTTTGGA  
GTTTCTTAGATATCCCTCGAAGTCGCCTAGTCAAAATACCCCTTACTGTAAAGAAATTTCTAAACACACTCCAA  
AAGAGCACCTGATGTTACGCTTCTGGAGGATGCTATATTGATAATACAGGAGTCTCTCTGATATCAACTGA  
AGAAAGGTGAATCCGAGTGCCAGTTATACATCGACAAGCTGGAGTACCTGGATGAAAAGCAGAGGGGACCCCAAG  
TCGAAGGCGCAAAAGTGTCTGTGTCATGGGAGCTCGGAGCAAGAGTGGACATAAACTTTACATTTTCTGT  
TTCAAGACATCTTGGTTCTGACTCGGCCGTGACACGGAACGAACGGCACTCTTACCAGGTTTACCGGAGCCAA  
TCCAGTCCAAGAGCTAGTCTAGAAGACCTGCAGGATGGAGATGTGAGAATTGGGAGGCTCTCTTCGAGGAGCTT  
TCGATAACTCAGAGAAAGCTATAAAATATCTTTAGAATTTCGTTCCATGACCCCTCCAGCCAGTCTCACACT  
TGCAAGCCAATGACGTGTTCCACAAGCAGCAGTGGTTCAACTGTATTTCGAGCGGCCATTGCCCCCTTCAGATCGG  
CAGGCAGTCCACCTGAGCTGCAGGCCCTGCCGGAGCTGCACGAAGAGTGTAGGGGGAACCAAGCCCTCTGCGAGGA  
AACTCACAGCCCAAGAGGGGCATCCACAGTTTCCAGTGTTACTCAGGTAGAAGTTGATGAAAACGCTTACAGAT  
GTGGCTGTGCATCGAGATGGCAGAGGACAGCAAGAGCTTAAAGACACACCAGACAGCCCGCATCCGAAGAG  
CGAGGGACAAGGCCCTTCTGGTGGCAACCGGAAAGAGACTTTGGTGT**AG**GAAGGCTCTGTGTGTTAACTGATG  
GGAGAGACTGTTTGTTTATAAATGTGTACAGTTTGTGTTTCTCGTAAGGGGAGCATATAGGGTTACTTTATACC  
AGTTGTAAACATTTTCATTGTTTGTGTTGTTCTTTTCTTTTTTAATGGCAGCTAAAGATATACAGATTACTG  
TTAAATTGCAGTCCCTTTTTTTTTTTTAAAGATATTTTCTGAATTATTTAGAACATGTTGAAGCCTGGTATTTTTTA  
ATCAAAACAAATATTTATGAAATGGGTTTCTCTTAATTCGGAATTCATCATGGCTTTCTAATACCAATTTGTAAT  
ATTTACAATATTCACCAAACTTAGAATTTTGCAAAATGCTGGAATTTCTGCCAGTGTCTTCTTGCTAAGCCTTGCA  
TGCAAAATTGAAATTTTAAACATTTGGCACCCAAACCTACATGGAATGTATGTCTGGAGTATTTCAAACCTTACA  
TTGAAACATAATTTCTTGGAAAAACCAACCAAGCCTGAGGAGGTTTTTATCAACTGGAATGCTTTATATTAGT  
TTGTTTTTCACTGTACATTTCTCATTTTACATTCAATTAACCTGCGGATTTTAAATTTTTTTATTGTAAAGTAG  
TTTTTAGCATTTGCTTTTTATTTTTTTTACTTTGATGCCTTTTCAAATGGCATGTCTTTAAAGTATTTTCTTCTCT  
GATTAAAAATGTGTGTGATGTGTGTGTGTGTATATATATATTTTTTTTAAATCACAATTAATTTTACCAA  
GTGAACCAAGCCATGCTGTTTTGTAGCCAAATTAAGAAATTTGCCATTTTTAAAGTGTAGCATTTCCAGGTAAG  
ACCATGAAATGGCTTGTGATTTCTAGACTACTGAAAGAAAACCACTTCAAAGATTTTGTGAAAGTTTATAGTG  
TTGCTGAAATGCAAGAGGGGAGGTGATTGGTAGTGAGTTAAAGAAAAAGAGAGGAAAAAGAGAGTAGTTTGTGCT  
TTCAAGTAAATGTCTGTTGTGTCAGACATTTCAAGTGTGAAAGGAGATAGGAGAAGCTCAACTGAGGGGCG  
TGTAAGTGTGTAAGGCTCGAGGGGACGTGGACTTATTGCTTGGTTTGCATACCTGCAAAATATAGATT  
TGAAAGAAACAATGAAATGTGTTAAAAATTTGACCATATTAGATAAAATTTTGGTGGATTAGTCATAAGATGGA  
AAAAGACTGGTGAATCTTTTATACAAAATGTTTCTGTAAATGGGATCATCATTTTGAAGGGGGGAGGAGG  
AGTAAAGCCCGATTATAATGGTGATCAATCAAGTCAGTGTGACTATTCTGTGAAATATATTTGGCCAGTGGGA  
AATGATAATCAGAAAGACTGTAATAGATCCATCCAAATGATTTCTCTGTACAAATGAATGATACATTAAAAA  
AAAAAAAAAAAA

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**FIGURE 155**

MVAHDETGGLLP IKRTIRVL DVNNQSFREQEEPSNKRVRPLARVTS LANLISPVRNGAVRRFGQTIQSFTLRGDH  
RSPASAKFSSRSTVPTPAKRSSALWSEMLDITMKESLTTREIRRQEAIIYEMSRGEQDLIEDLKLARKAYHDP  
LKLSIMSEELTHIFGDLDSYIPLHEDLLTRIGEATKPDGTVEQIGHILVSWLPRLNAYRGYCSNQLAAKALLDQ  
KKQDPRVQDFLQRCLESFSSRKLDLWSFLDIPRSRLVKYPLLLKEILKHTPKHEP DVQLLEDAILIIQGVLS  
DIN LKKGESECQYYIDKLEYLDEKQRDPRIEASKVLLCHGELRSKSGHKLYIFLFQDILVLRPVTNRNHSYQVYRQ  
PIPVQELVLEDLQDGDVRMGGSF RGAFSNSKAKNIFRIRFHDPSPAQSHTLQANDVFHKQWFNCIRAAIAPFQ  
SAGSPPELQGLPELHEECEGNHP SARKLTAQRRASTVSSVTQVEVDENAYRCGSGMQMAEDSKSLKTHQTQPGIR  
RARDKALSGGKRKETLV

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FIGURE 156

AGAGGCTTCCCTGGCTGGTGCCTGAGCCCGGCGTCCCTCGCCCCCGCCCTCCCGCATCCCTCTCCTCCCTCGCG  
GCTTGGCCCTGTGGCTTCTCTCCTCCTCTCCCCCCCCCCCCACCCCTCGCCCGTGGCTCCCTCGGCCA  
GCCAGCTGTGCGGCGTTTGTGGCTGCCTCGCCCGGCGCTCCAGCCAGCCTTTCGCGGGCCCGCGCGCATG

GAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCAGCGTCCG  
GGCCACCTTCCCGGGCTTCTGCTGGGATCTCATGGCTCTTGGGGTCCCGGTCGGGGCGGCCGTCTCTCGCG  
GTCACACCCCTCACCCAGACCATGCAGACTCGCCGGGCTCGCAGCCGAGCCGCTGACGCACATATCCCTG  
TCTCGACGGGATCCGAATCCTCCCTGTCGCTGAATCCTCCGAATCTTCTGATGCAGGCTCTGATGGATTCC  
CCGAGCCCTTGGACCCCACTGCGGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTGGA  
AACGAGCAATTTGGCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGCCACAGCCCCGTCTTCGGAAC  
ATCACCAACTCCCAGGCGCCCGAGCGCGGAGGAAGAGCGAGCGGGCAGTGAGCTGCAGCAGCTCTGGGGAA  
GACAAGGAGAAATGTGCGCTTCTGGAAGCGCGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT  
TCCCTGGCATGTGAGGACCTCTCTCCTCATCTTGGCTGCAGGATGGATTTGTCTTCAAGATGCCATGGAAGCCC  
ACACATCCCAGCTCCACCCATGCTCTGCGCAGATGGGCCAGCCGACAGGAAGCCTTTGCCAGAGACCCAGCTCG  
GCCCGCAGCTGTGCTGCTCAGTCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTGCG  
TTCTCTGACCCCTCGAGAGGGGATCTGAGGAAGATGATGATTTGTGGAGATCCTAGAGATGCTACTTAAAG  
GATGATGATGACAGTTCGCCAGGATGGAGAGTCTCATTAGTGCCCACTGGTCAAGACCTTTGAAAAGGAAGAG  
GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCGGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG  
CCCATCCTCAAGAGCTGGAGCGGCCAGGACAGGCGCCGCGGAGCAATAAGCGGAGGCGGAGCGTGACC  
CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCGTCTCCGCTCAAAATCAGTGTGTACAGATGAG  
ATCGAGAACCTCTGGACAGTGAACCCGAGAGCTGATTGGAGATTACTCAAGCGCTTCTCTACACAGCAGTA  
GACGGAAGCACCAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGCAAGTTCAGCAAC  
ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGCGGGCAGATCAAGACTGCGGTG  
AACTTGGCCCTGGAAACCGCAGCCGAGAGCTTCTACTGAAGAGCCCATCGCCCTGTAGCTGGACAAGAGA  
GTCATCTCTATTTTCCACTGTGAATTTCTCATCTGAGCGTGGGCCCGCATGTGCCGTTTCATCAGGGAACGAGAC  
CGTGCTGTCAACGACTACCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGCGGGCTACAAGGAGTTCTTC  
CCTCAGCACC CGAACTTCTGTGAACCCAGGACTACCGGCCATGAACACGAGGCCCTCAAGGATGAGCTAAAG  
ACCTTCCGCCCTCAAGACTTCGACGCTGGGCTGGGAGCGGAGCCGCGGGAGCTGTAGCCGGCTGCAGGACCAG  
TGAGGGGCTGCGCCAGTCTGCTACTCTCCCTTGCCCTTCGAGGCCGTAAGCCAGCTGCCCTATGGGCTGCGCG  
GCTGAGGGCTGCTGGAGGCTCAGGTGCTGTCCATGGGAAGATGGTGGGTGCTCTGCGCTGTCTGCCCCAGCC  
CAGATTCCCTGTGTATCCCATCATTTTCCATATCTGGTGGCCCCCACCCCTGGAAGAGCCAGTCTGTTGAG  
TTAGTTAAGTTGGTTAATACCAGCTTAAAGGCAGTATTTGTGTCTCCAGGAGCTTCTGTTTCTTGTAGG  
GTTAACCCTTCATCTCTGTGCTCTGAAACGCTCTTTGTGTGCTGTCAGCTGAGGCTGGGAGAGCCGTGGT  
CCCTGAGGATGGGTGAGAGCTAAACTCTTCTGGCTGAGAGTCAAGTCTCTGCGCTGTGTACTTCCCGGCCA  
GGGCTGCCCTTAATCTCTGTAGGAACCGTGGTATGCTGACCATGTTGCCCTTTCTCTTTTCCCTTTCTGCTC  
CACCATAGCAGCACTCCAGCCTGAACAGAAGCTCTTACTCTTTCTATTTCAGTGTACCTGTGTGCTTGGTCT  
GTTTGACTTTACGCCATCTCAGGACACTTCCGTAGACTGTTTAGTTCCTCTGTCAAAATACAGTTACCCACTC  
GGTCCAGTTTGTGTGCCCCAGAAAGGGATGTTATTATCTTGGGGCTCCGAGGGAAGGGTTAAGCCCTGAAT  
CATGAGCCTGCTGGAAGCCAGCCCCCTACTGCTGTGAACCTTGGGCTGACTGCTCAGAACTTGTGCTGTCTT  
GTTGGCGATGGATGGAAGTTTGGATGGATGGGTGGATGGCCGTGGATGGCGAGTGCCCTTGCATAC  
CCAAACAGGTGGAGCGCTTTTGTGAGCATGACACTGCAGCAGGAATATATGTGCGCTATTGTGTGGACAA  
AAATATTTACATTAGGGTTTGGAGCTATTCAGAGGAAATGTCACAGAGCAGCTAAACCAAGGACTGAGCACC  
CTCTGGATTCTGAATCTCAGATGGGGGCGAGGCTGTGCTTGAAGCCCTGCTGAGTCACTGTTAGGGCTTGG  
TTCAATAAGCACTAGCAAGATTGAGAAAAA

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**FIGURE 157**

MEVPQPEPAPGSALSAPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS  
LSRRASESSLSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMPPVRLLGHSPLR  
NITNSQAPDGRRKSEAGSGAASSSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGGFVKMPWK  
PTHPSSTHALAEWASRRFAFAQRPSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILES  
KDDDAVPPGMESLISAPLVKILEKEEEKDLVMYSKCQRLFRSPSMPCSVIRPILKRRLRPQDRDTPVQNKRRRSV  
TPPEEQEAEKARVLRSKSLCHDEIENLLSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVALLTGKFS  
NIVDKFVIDCRYPIEYEGGHIKTAVNLPLERDAESFLKSPIAPCSLDKRVILIFHCEFSSESGPRMCRFIRER  
DRAVNDYPSLYYPEMYILKGGYKEFFPQHPNFCPEQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD  
Q

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FIGURE 158A

CTGCGGCCGCTGGTTCCTTCGCCTTAAGGAGGCCATTGCCCTTTCCCGCTGAAGCTAGATGTTGACATGTAATAA  
AGCGGCGACGAGGAATGGTGGTGGATGCGGCCAAC TCCAATGGGCGCTTCCAGCCCGTGGTCTCTTCATATTCTG  
AGATGTTCTCTCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTACGTGTTGCGTCTCTTTGACTTTGT  
TTCTGATCCACTAAGTGACCTAAAGTGGGAAGGAAGTAAACGAGCTGCTTTAAGTGAATGGTGTAGATAATATCAC  
CCATAATCGGAATGTGATCACAGAGCTATTATCCAGAAAGTAGTCCATATTGTTGACGTAAACATGTTTCCGAAC  
ATTACACCTTCTCTCCAATCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG  
GCCTCATCTACAGCTTGTTTATGAATTTTCTTAAGATTTTAGAGTCTTCAGATTTCCAACCTAATATAGCGAA  
GAAATATTTGATCAGAAGTTTGTATTGACGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT  
TCTTAAACACCCTTACAGAAATCTATGGGAAATCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA  
TATATTTTATAGGTTTATTTATGAACAGAGCATCATATGGCATAGCAGAGTCTAGGAAATATTGGGAAGTAT  
AATTAAATGGATTTGCCTTACCCTAAAGAGAAGCACAAGATTTTCTTATTGAAGGTGTACTACCTTTGACACAA  
AGTGAATCTCTGAGTGTCTACCATCCCGAGCTGGCATCTGTGTAGTGCAGTTTTAGAAAAGGACAGCACCT  
CACGGAACAGTGGTGATGGCCTTCTCAAATCTGGCCAAAGACTCAGAGTCCAAAAGAAAGTAAATGTTCTTAA  
CGAATTAGAAGAGATTTAGATGTCTTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT  
GGCCAAATGTGTCTCCAGCCCACTTCCAGGTGGCAGAGCGAGCTCTCTTATTACTGGAATAATGAATACATCAT  
GAGTTTAACTAGTGACAAAGCAGCGAAGATTCTGCCATCATGTTCTCTTACCGCAACTCAGGACTCAAAAGCCA  
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTATGAGAGATGAACCAAGAGCTATTGGA  
TGACTGTACACAACTGTTCAAGCAGAGAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGACATGGGT  
TAAATAGAAAATCTAGCCAAAGCCCAATCCCGAGTACACAGTGTATGTAGTCAAGCCGACCATAGGACTTCCGGT  
TGCAATGGAGACAGATGGGCTTATTTGAAGATGTGCAGATGCTGAGAAGACAGTGAAGGACGAGGCTCATCA  
GGCACAGAAAGATCCGAAGAGGACCGTCTCTTGCACTCCGCAAGTCCGAGTGGCTTCAGACCCCAACACCA  
GAAAGCTTTGGAAGTCACTGCGAGGCCGATGAGCTGGCTCCCGAGGAGCGCGCTTAGCCTCCGGGGCGCCGCT  
CGGGGCGGGCGCCGAGTCTTTCCGGATTCTGTAGAAAAATACATCTTCTGTCGACCATCAATCAGTTACA  
CTCAAGGCTTCTTGACCCCGTTCGAGTGGCAATAACGTGCGCTCAGCGGATAGGAGATTAGAGTTTCAAA  
ATGGTGACTTCCAGAGCGCCGTTGGCAGAGCGCGGGTTGACGACGGTGTCTCGCAGTGTGCGCGCCACCCAG  
CGTAGTCCAAGTCAGACTATTTCACAAAGTCAGAGCGATAGGAAGACCCCTGCCCTTCATCTTCATGTTCTCC  
AAATGGAACCTTAGGATCTTTAACAATAGGTGGTTCTGTGATAACATCAGTGTCTTCCAAATCAAGGAACCGCTT  
AAAAAATAGGACCTATTTTAAAGACTTTACAGCCTTTGAATGGTTCACAGTGTATTGTTACGCCAGCAGTTCT  
TTTGTGTTGTTTCAATCTCAGTGAATGGCTTTTGCTTTCAGAGTTCTCAGCAACGCTACTGGGCAATGACAA  
TCTCAGCGCTGGATTTTCTAAGGGGCTCTTCACTTTGATGAGTGACATGAACACCGCTCTCTTCTCTTG  
TGTTACTTAAAGCCATATTTCAAGTCTGTGGTACTCCAGGATTCAGAGAGTAAAGCTGTAGAAGAGATTTAT  
TTAAAGAGATTGCTGAAATTTATCTTAAAGAGCTTGCTCTGCTACCTTGACAGAAATGGAGTTTAA  
TTATGTGTTAAATTTTATTTCGAGATTTCTTCCGCAACTTAAACATTTGTGCCCTTCAACAGGCTCTTG  
AATTAATAAAATTTATAGTCTCTAAGAAATCCACATTTTATGGAAGTTAGAGCAAAATCATTTGAGTTAGGCA  
GTTCTTAGCCTAATGCAACTGCGAGCGCTTTAAGACATAAAGTAACACACAGACTTGCACGGGCGGACGCTGC  
CGCTGCCCTCAGTGAAGCTGACGTGCTGTTCTGAGAGCTTGAGGAGGACCAGCGAGGATGACGTTTAGTGGA  
GCTCTTCTGTGAAAGAGCTCAGTTATCAACACCTTGTAAAGGAAAAATACAGTTGTCTGAGTTTCAATCGGCT  
TCACATGCTGCTATATATTCACAGAGTTCTTGATGTACTGAGCTTTTATGATGGAATAGGACACAAGAG  
AAAAACTCTTAACTTAGTGCTTTGCTATTCTTTATCTCAGGGTGGCCAGTATTTGACTTATTTATCTCT  
GCTTGAAGAGCTACTTGAGATGTGACTGCTATTCTAAACACGTGATCTAGTTCTTTCATCTCTGCGCATAGATT  
ATATAACTTAATGTTAAAGTGCTTTAGGCAATAAAGACAAAATGTGGCTTATTTGAGCTGCTTTTTCATCGA  
GGTCTCGGGTATCCTTTCAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCACT  
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCGTGTCTTGGAGGAAAAATCACTGGGGGAGGGGACTTC  
TTGTGTAAGAGCAAGTGCAGGATATGAAGTGCAGAGATTGCCCGAGTAAAGTGGACAGTCCGCTTTGTGAGA  
TGAATACTCTCTGAGAACTTGACAAGTATCTCTCAATTTTACCATTATGAAACTATCATAAAAAAACAGTT  
TAGATGCCCTCTCTTTTGGAGGAAAAAGGTGCTTTTATTGTATAAAGCAGCGCTTATGTTTGTATATAC  
CATGTTTGAAGCTCCGCTTTAGCTGTATAGATTCTCAATGTTATTTGGATGTTTCAGATGTTTGTGAG  
AGAGGTTTCTGGAAGACTCTCTTTTGCCCTCGGGAAGGCAAAATACAAATGTTGGGTGACTGTGTAAGC

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**FIGURE 158B**

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA  
AAATAAAAGTTTTTCAGAGAACTAATTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC  
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATGTATAGAGACTGTTTATTCTGTACCAA  
CTGATTTCAAAAGTACTACATTGAAAAATAAACCGGTGACTGTTTTCTTCATAAAGTTCTGCGTTTGGCATCTC  
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTAGTGTGGCCTTTAGTATGG  
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAAATGTAGACTTCAAAAA  
AAAAGCGCCGCAG



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**FIGURE 159**

MVDDAANSNGPFQPVVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKVEVKRAALSEMVEYITHNRN  
VITEPIYPEVVHMFVNMFRTLPSSNPTGAEFDPDEDEPTLEAAWPHLQLVYEFFLRFLFLESDFQPNIAKKYID  
QKFVLQLELFDSEDPREDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHNGIAELLEILGSIINGF  
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSLTPEPVMALLKYWPKTHSPKEVMFLNELEE  
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYWNNEYIMSLISDNAAKILFIMFPSLYRNSKTHWNKT  
IHGLIYNALKLFMEMNQKLFDDCTQQFKA EKLEKLEKMKEREEAWVKIENLAKANPOYTIVYSQASTMSIPVAMET  
DGPLFEDVQMLRKTVKDEAHQAQKDPKKDRPLALRKSELQDPHTKKALEAHCRADELASQDGR

CCGGAGGAGTCCGAGAGGAAAGCGGAGGCGCAGCTGGAGGCGGCGGCTCCCGTCGGCCTCCGGCAGGACTGAGCG  
CTGGGAGGCCGGAAGCGGGCGCGCACGGCGGAGAGGCGGGCGGGAGGCCGAGGCATATTAATGAAAAGTGCCAT  
AAACTGAAAAACCAAACTGAGGGTAGCAGGTGCTGCAAAAGTTGGTGGTAGCTGTGGCAGTGTTTTACTGACAT  
TTTATGTTATTTCTCAAGTATTTGAAATAAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG  
ACACAGCTGCAGCGTTCTACAAAGCCTCCAGATATAAGTGTGGGATCTCAAAGCTTGCCCTGAGAAGCAITTTTG  
CTTTTAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAATCTGCCTGGAAGATAATGTTTATGAGTG  
GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCTTGGCAATGGAAAAACAGGAGAAGTATTAGACACTA  
AATATTTTGACATGTGGGAGGAGATGTGGCACCATTATTGAGTTTCTGAAGGCCATACAAGATGGAACAATAG  
TTTTAATGGGAACATACGATGATGGAGCAACCAAATCTCAATGATGAGGCACGGCGGCTCATTGCTGATTGGGGA  
GCACATCTATTACTAATCTTGGTTTAGAGACAACCTGGGTCCTCTGTGGTGGGAAGGGCATTAAGACAAAAGCC  
CTTTTGAACAGCACATAAAGAACAATAAGGATACAAAACAATATGAAGGATGGCCTGAAGTTGTAGAAATGGAAG  
GATGCATCCCCAGAACGAAAGTAAATGGAAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACTCTTAATGGGA  
GAGCTATAAATGGCAGAGCTATGTGTAATAATTTTAAGAGCATGCAGCCATCTTGGTGTGTGCATGAGTATTGTC  
TCTTTTGATATCAGGATTATTTATGCTAACGTAAATAGATAGCATTGTAAATAATCATCAATGATCAAATCA  
CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAAATGTTTAGACTGCTATGGTAATACATATTTTAAATCTA  
AAAGCATACAAATGTGTAACCTGAATGGTTTGTGAAAAATATATTGATATATATACTAGTTGCTATGAAAATATC  
ATGGAATAATAGGGATTTTAGGGTGGATACCTTATTTCTTTTATGTTTCTATATGTGTGGTGTGTGATGACATTA  
TCTTTTAAATTAAGAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCCTCGATGTACCT  
CTTTTCATGATCTTTTCTTTCTTCCCAAGAACTGAGGAATGTTTAAATGAAAAACATACATCGGATATGTGA  
AAAGCACAACAAATTTCTTAATGTACACAGTAAAAAGTAAATATATAAATGTAGATGGCATTAGGACCACAGC  
TTGCTGGATTTGTGTAGCTATGGGAATAACTTGATTTGTATAAGCTATTTAGAGTGAAGGCTGGAGGTGGCAGC  
TTCACAGAACTGGAGAACCAGGCTCCCTCCCAACCTAAATAGGTCACTCAGGACAGCTAAGTCAGTATA  
TTTAGAGCAATACTAGCATACGTTTTTCTTAATGTTTATCAGCATTGACCAAGTGGTTTGGAGGAGGCCATGCTT  
TAATATCACAATAATTTGATTTGTAAACCAAGAAATTAATCTGTGTTTATCTAACTTCATAATAGCAATTAAT  
GCCCGAAGCTATAGTGGCATATTTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAATAATTGTG  
TTTGACCCCAATGACTTTATACCAATTTCTACATAAAAAATAGAAAGATCTATCTTTTTTGTACCTTCAGAT  
GTTCACTAAATAACTCAGTTTTTAAGCAGAAGTTTTTCAGGGCATTAATATATGTTGTGATGAAGTATCTCAAA  
CTGGAACATAAATTTAGTGATCAAATGCCATTACAGTGTAAGGCAGCACITAAATTTGCAACCTAAAGTTTAG  
ATGCATTGTATAAAAAACCTAAAAGCAGTATCTGTTATTTAGCTGTAACCAAGTTGGAAGCTATTCGGATAAT  
TCTTAAATATTGATGAACTTGGAGTACTGTTTCTCCCTCAAAGTGAATGAATTAATTAATCATGAATAAATGCA  
CCTTATATGTTTAAACAATCTTTGTATACTTTTGGGATTTTGGTGCTTATATGCTAAATCACAATTCAGCATGTG  
TATTTTGACATTTAAAAACTCTCCCTCAATTTCTGTAATTAAGAAATAGTTATTTTACAGTTCACGGGATGTG  
AAATAAATGTGTCAGTTTTTAAAAATGAATAAATAAATTAATCTGGTTTTGCTTTTGAAAAAATAAATAAATAA

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**FIGURE 161**

MRVAGAAKLVVAVAVFLTFYVISQVFEIKMDASLG NLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS  
GAANVVGPKICLEDNVLMMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY  
DDGATKLNDEARRLIADLGSTSITNLGFRDNWVFCGGKGIKTKSPFEQHIKNNKDTNKYEGWPEVVEMEGCIPQK  
QD

CCCAGGCGCAGCCAAATGGGAAGGGTCGGAGGCATGGCACAGCCAAATGGGAAGGGCCGGGGACCAAAAGCCAAATGG  
GAAGGGCCGGGAGCGCGCGCGGGAGATTTAAAGGCTGCTGGAGTGAAGGGTGCGCCGTGCACCCGTGTCCAG  
CCGTCTCTGCTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCACTATGCTCTCCCTCGCTGCCGCTCGCGGCCA  
TCACGGACCCGCAGCAGCTGCAGCTCTCGCCGCTGAAGGGCTCAGCTTGTGTCAGAACGAGAACACGCCCGCCGG  
CCCTGAGCGGGACCCCGCTCTGGCCAGCAAGACGCGGAGGAGTCTTCCAGGAGCCACGGAGCCGAAAACCTA  
AAGCAGCTGCCCGCGGCTGGAGGATGAGCGCGCTGCTGAGAGAAAAACCCCGCGCTTTGTCACTCTCCCATCG  
AGTACCATGATCTTGGCAGCATGTATAAGAAGGCAGAGGCTTCCTTTTGGACCGCCGAGGAGGTTGACCTCTCCA  
AGGACATTTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTATATCCCATGTTCTGGCTTTCTTTGCAG  
CAAGCGATGGCATAGTAAATGAAAACTTGGTGGAGCGATTTAGCCAAAGAAGTTCAGATTACAGAAGCCCGCTGTT  
TCTATGGCTTCCAAATTGCCATGGAAACATACATTCTGAAATGTATAGTCTTCTTTATTGACACTTACATAAAAG  
ATCCCAAAGAAAGGGAATTTCTCTTCAATGCCATTGAAACGATGCCCTGTGTCAAGAGAAGGCAGACTGGGCCT  
TGCCTGGATTGGGACAAAGAGGCTACCTATGTGTAACGTGTGTAGCCCTTGTCTGCAGTGGAAAGCATTTTCT  
TTTCCGGTTCTTTTGGCTCGATATCTTGGCTCAAGAAACGAGGACTGATGCCCTGGCCCTCACATTTTCTAATGAAC  
TTATTAGCAGAGATGAGGGTTTACACTGTGATTTTGGCTTGCCTGATGTTCAAACACCTGGTACACAAACCATCGG  
AGGAGAGAGTAAGAGAAATAATTATCAATGCTGTTCCGATAGAACAGGAGTTCTCTACTGAGGCCTTGCCTGTGA  
AGCTCATTTGGGATGAATTGCACTCTAATGAAGCAATGATGTTTGGCAGACAGACTTATGCTGGAACTGG  
GTTTTAGCAAGGTTTTCAGAGTAGAAGCCATTGACTTTATGGAGAATATTTCACTGGAAGGAAGACTAACT  
TCTTTGAGAAGAGATAGGCGGATTCAGAGGATGGGAGTGAITGCTCAAGTCCAACAGAGAAATCTTTTACCTTGG  
ATGCTGACTTCTAAATGAAGCTGAAGATGTGCCCTTACTTGGCTGATTTTTTTTTTTCATCTCATAGAATAATCA  
GCTGAAGTGTAAACCACTAGCCACCATGAATTTGCTCCGTAATGTTCAATTAACAGCATCTTTAAACTGTGTAGC  
TACCTCACAAACAGTCTCGTCTGTTCTTTATAGTGTGTTAGTATCACTTTTGGCAGAAGGCTGGCTGGCTGTGAC  
TTACCATAGCAGTGACAAATGGCAGTCTTGGCTTTAAAGTGAGGGGIGACCCCTTATGAGCTTAGCACAGCGGGA  
TTAAACAGTCCCTTAAACGACGACAGCCAGTTAAAGATGCAGCCTCACTGCTTCAACGCAGATTTTAATGTTTAC  
TTAAATATAAACCTGGCACTTTTACAAACAAATAAACATTTGTTTGTACTACGCGCGGCGATAATAGCTTGATTTA  
TTTGGTTTCTACACCAATATACATTCTCTGACCCTAATGGGAGCCAATTCACAAATTCATAAGTGACTAAAGTA  
AGTTAAACTTTGTAGACTAAGCATGTAATTTTTAAGTTTTATTTTAATGAATTAATAATTTTGTAAACCACTT  
TAAAGTCAGTCTGTGTATACCTAGATATTAGTCAGTTGGTGCCAGATAGAAGACAGGTTGTGTTTTATCTCTGT  
GGCTTGTGTAGTGTCTGGGATTTCTGCCCCCTCTGAGTAGAGTGTGTGGGATAAAGGAATCTCTCAGGGCAA  
GGAGCTTCTTAAGTTAAATCACTAGAAATTTAGGGGTGATCTGGGCCTTCATATGTGTGAGAAGCCGTTTCATT  
TATTTCTCACTGTATTTTCTCAACGTCTGGTTGATGAGAAAAATTTCTTGAAGATTTTTCATATGTGGGAGCTA  
AGGTAGTATTGTAAATTTCAAGTACTCTTAAACAAATGATCCAAATGATCTTGGCCCTGTTAAGTGGTGA  
AATCAACTAGAGGTGGTTCTCAAGTTGTTCAATCTAGTTTTGTTGGGTGAAGTAGGTTGTGTAGGTTAATTC  
ATTTATATTATCTAIGTCTGTTAAATCAGAAATTTTTTATTATCTATGTTCTTCTAGATTTTACCTGTAGTTTAT  
ACTTCAGTCACCCAGTGTCTTATCTTGGCATTTGCTAAATCTGAGCATTTGCTAGGGGATCTTAAACTTTAGTA  
GGAACCATGAGCTGTATATGTTTCCATTCAAATTAATTTTCAAGATGAAACATAATTTTTTTTTTTTTTTT  
TGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCGCATTTTGGCTCAGTGAACCTCCATCTCC  
TGGGTTGAAGCAATTTCTGCTCTCAGCCTCCCTAGTAGTGGGACTGCAGGTATGTGCTACCACACCTGGCTAA  
TTTTTGATTTTAAAGTAGAGATGGAGTTTACCATTAATTTTCAAGTAAATTTTCAAGATGAAACATAATTTTTTTTTTTT  
CACCCACCTCGGCCCTCCCAAAGTGTCTGGGATTGCAGCGCTGATAAACAAATATCTTAAATAGGGCTACTTTGAA  
TAAATCTGCCCTTTATGTTTGGGAGAAGAAAGCTGAGACATTGCATGAAGATGATGAGAGATAAATGTTGATCTT  
TTGGCCCATTTGTTAAATGATTCAGTATTTGAACGTGCTGCTGTTTATGTTAGTTTTTCTCATGATTTTATG  
TATAGACAAATTTTAAATCTCTGTAATATGATACATTTTCTATCTTTTAAAGTTATGTTTACCTAAAGTTAAATC  
AGATTATATGGTCCTTATATGTGTACAACTAAATGAAAGGCTTTGTCTTGCAATGTGAGGTACAGGCGGAAG  
TTGGAATCAGGTTTAAAGATTCTGCTCTTCAATAGCTGAATAATGTGAGGATTAACCTCTGCGACCTCAGACCAT  
TTCTTAATCAGTTGAAGGGAACAAAGTATTTCAGTCTCAAAATGAATAATGCACAGCTTAAAGTGATTAATA  
TAAACTGTTCTTATGTC

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**FIGURE 163**

MLSLRVPLAPITDPQQLQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTEPKTKAAAPGVEDEPLLRE  
NPRRFVIFPIEYHDIWQMYKAEASFWTAEVDLSKDIHWESLKPEERYFISHVLAFFAASDGIVNENLVERFS  
QEVQITEARCFYGFQIAMENIHSEMYSLLDITYIKDPKEREFLFNAIETMPCVKKKADWALRWIGDKEATYGERV  
VAFAAVEGIFFGSGSFASIFWLKKRGLMPGLTFSNELISRDEGLHCDFACLMFKHLVHKPSEERVREIIINAVRIE  
QEFLTEALPVKLIQMNCTLMQYIEFVADRLMLELGF SKVFRVENPFDFMENISLEGKTNFFEKRVGEYQRMGVM  
SSPTENSFTLDAF

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**FIGURE 164**

GAATTCGGGCGGTCTCGGAGACACGCGCGGTGTCTGTGTTGGCC**ATG**CCGACTACCTGATTAGTGGGGGCA  
CGTCTACGTGCCAGACGACGGACTCACAGCACAGCAGCTCTTCAACTGCGGAGACGGCTCACCTACAATGACT  
TTCTCATTTCTCCCTGGGTACATCGACTTCACTGCAGACCAAGGTGGACCTGACTTCTGCTCTGACCAAGAAATCA  
CTCTTAAGACCCCACTGGTTTCTCTCCCATGGACACAGTCACAGAGGCTGGGATGGCCATAGCAATGGCGCTTA  
CAGGCGGTATTGGCTTCATCCACCACAACCTGTACACCTGAATTCCAGGCCAATGAAGTTCGGAAAGTGAAGAAAT  
ATGAACAGGGATTATCAGACACCTGTGGTCTCAGCCCCAAGGATCGCGTGCGGGATGTTTTTGGAGCCAAGG  
CCCGGCATGGTTTCTGCGGTATCCCAATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCT  
CCAGGGACATTGATTTTCTCAAAGAGGAGGAACATGACTGTTTCTTGGAAAGAGATAATGACAAAGAGGGAAGACT  
TGGTGGTAGCCCCCGCAGCATCACTGAAGGAGGCAATGAAATTTCTGCAGCGCAGCAAGAAGGGAAAGTTGC  
CCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTGCCCGGACAGACCTGAAGAAGAATCGGGACTACCCAC  
TAGCCTCCAAGATGCCAAGAAACAGCTGCTGTGTGGGGCAGCCATTGGCACTCATGAGGATGACAAGTATAGGC  
TGGACTTGCTCGCCAGGCTGGTGTGGATGTAGTGGTTTTGGACTCTTCCAGGGAAATCCATCTTCCAGATCA  
ATATGATCAAGTACATCAAAGACAAATACCCCTAATCTCCAAGTCATTGGAGGCAATGTGGTCACTGCTGCCCAGG  
CCAAGAACCTCATTGATGCAGGTGTGGATGCCCTGCGGGTGGGCATGGGAAGTGGCTCCATCTGCATTACGCGAG  
AAGTGTGGCTGTGGGCGGCCCCAAGCAACAGCAGTGTACAAGGTGTGAGATGTACACGGCGCTTTGGTGTTC  
CGGTCAATTGCTGATGGAGGAATCCAAAATGTGGTCAATATTGCGAAAGCCTTGGCCCTTGGGGCTCCACAGTCA  
TGATGGGCTCTCTCTGGCTGCCACCACTGAGGCCCTTGGTGAATACTTCTTTTCCGATGGGATCCGGCTAAAGA  
AATATCGCGGTATGGGTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGATATTTCAAGTGAAGCTG  
ACAAAATCAAAGTGGCCAGGGAGTGTCTGGTGTGTGCAAGGCAAAAGGTCAATCCACAAATTTGTCCCTTACC  
TGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCAGAGCTTGACCCAAGTCCGAGCCATGATGTACT  
CTGGGGAGCTTAAGTTTGAGAAGAGAACGTCTCAGCCCAGGTGGAAGGTGGCGTCCATAGCCCTCCATTCTGTATG  
AGAAAGCGGCTTTTCTGA**AA**AGGGATCCAGCACACCTCTCGGTTTTTTTTTCAATAAAAGTTTAGAAAGACCCGA  
ATTC

**FIGURE 165**

MADYLISGGTSYVPDDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTE  
AGMAIAMALTGGIGFIHHNCTPEFQANEVRKVKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRM  
GSRLVGISSRDIDFLKEEEHDCFLEEIMTKREDLVVAPRSITLKEANEILQRSKKGKLP IVNEDDELVAI IART  
DLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGSNIFQINMIKYIKDKYPNLQVI  
GGNVVTAQAQKNLIDAGVDALRVGMGSGSICITQEVLACGRPQATAVYKVSEYARRFGVPVIADGGIQNVGHI AK  
ALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNRYFSEADKIKVAQGVSGAVQDK  
GSIHKFVPLYIAGIQHSCQDIGAKSLTQVRAMMYSGELKFEKRTSSAQVEGGVHSLHSYEKRLF

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**FIGURE 166**

AGAGCGATC**ATG**TCGCACAAACAAATTTACTATTTCGGACAAATACGACGACGAGGAGTTTGAGTATCGACATGTC  
ATGCTGCCCAAGGACATAGCCAAGCTGGTCCCTAAACCCATCTGATGTCGAATCTGAATGGAGGAATCTTGGC  
GTTTCAGCAGAGTCAGGGATGGGTCCATTATATGATCCATGAACCGAACCTCACATCTTGCTGTTCCGGCGCCCA  
CTACCCAAGAAACCAAAGAAAT**TGA**AGCTGGCAAGCTACTTTTCAGCCTCAAGCTTTACACAGCTGTCCTTACTTC  
CTAACATCTTTCTGATAACATTATTATGTTGCCTTCTTGTTTCTCCTTTGATATTTAAAAGATGTTCAATACAC  
TGTTTGAATGTGCTGGTAACTCGTTTGCTTCTTGAGTAGAGCCACCACCACCATAGCCCAGCCAGATGAGTGCTC  
TGTGGACCCACAGCCTAAGCTGAGTGTGACCCCGAAGCCACGATGTGCTCTGTATCCAGAACACACTTGGCAGA  
TGGAGGAAGCATCTGAGTTTGAGACCATGGCTGTTACAGGGATCATGTAAACTTGCTGTTTTTGTGTTTTTCTGCC  
GGGTGTGTATGTGTGGTGACTTGGGATTTATGTTTCAGTGTACTGGAAACTTCCATTTTATCAAGAAATCT  
GTTTCATGTTAAAGCCTTGATTAAAGAGGAAGTTTTTATAAT



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**FIGURE 167**

MSHKQIYYSDKYDDEEFYRHMVLPKDIAKLVPKTHLMSESEWRNLGVQQSQGWVHYMIHEPEPHILLFRRLPK  
KPKK

## FIGURE 168

GCGGCGCTCGCGCCAAGGGACGTGTTTCTGCGCTCGCGTGGTCATGSAGGCGCTGCCGCTGCTAGCCGCGACAAC  
TCCGGACCACGGCCGCCACCGAAGGCTGCTTCTGCTGCCGCTACTGCTGTTCTGCTGCCGGCTGGAGCTGTGCA  
GGGCTGGGAGACAGAGGAGAGGCCCGGACTCGCGAAGAGGAGTGCCACTTCTACGCGGGTGGACAAGGTACCC  
GGGAGAGGCATCCCGGGTATCGGTGCCGACCACCTCCCTGCACCTAAGCAAAGCGAAGATTCCAAGCCAGCGCC  
CTACTGGGAAGGAACAGCTGTGATCGATGGAGAAITTAAGGAGCTGAAGTTAACTGATTATCGTGGGAAATACTT  
GGTTTTCTTCTTCTACCCACTTGATTTCACATTTGTGTGTCCAAGTAAATATCGCTTTTGGCGACAGACTTGA  
AGAATTCAGATCTATAAATACTGAAGTGGTAGCATGCTCTGTTGATTACAGTTTACCCATTTGGCCTGGATTAA  
TACCCCTCGAAGACAAGGAGGACTTGGGCCAATAAGGATTCCACTTCTTTTCTAGATTGACCCATCAGATCTCAA  
GGACTATGGTGTATACCTAGAGGACTCAGGCCACACTCTTAGAGGTCTCTTATTATGATGACAAAGGAATCCT  
AAGACAAATTACTCTGAATGATCTTCTGTGGGTAGATCAGTGGATGAGACACTACGTTTGGTTCAAGCATTCCA  
GTACACTGACAAACACGGAGAAGTCTGCCCTGCTGGCTGGAAACCTGGTAGTGAACAATAATCCCAGATCCAGC  
TGGAAAGCTGAAGTATTTGATATAAAGTGAATTGAGAAATATCTTCAAGTTATGATGCTTGAAGTTCTCAATA  
AAGTTCACGGTTTCATTACCA

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**FIGURE 169**

MEALPLLAATTPDHGRHRRLLLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH  
LSKAKISKPAPYWEGTAVIDGEFKEKLTDIRGKYLVFFYPDFTFVCPTEIIAFGDRLEEFRSINTEVVACSV  
DSQFTHLAWINTPRRQGGGPIRIPLLSDLTHQISKDYGVYLEDSGHTLRGLFIIDDKGILRQITLNDLPVGRSV  
DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

GGAAAAAGCGACTTGTGGCGGTCGAGCGTGGCGCAGGCGAATCCTCGGCGACTAAGCAAAATATGCGACCTCGCGGC  
GGCAGCGGAGCCGGGCGCCGGCAGCCAGCACCTGGAGGTCGCGCAGCAGGTTGGCCGAGAAGTCCAGAAAATCGTT  
CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAATACCTTGCATATTAGCAGAGGAAGCTGATTGCG  
TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTTAACCGCAACTTCCACCACCAATTCA  
AGAGGAGTTCTATGAGTTTACCCTTACTCTGTGCGGCGCTTGAAAACATTTCGCAAGACCGGTAAAGAGATCCC  
TCTTGCCAAGGATTTTATGTGCATTCCAAGACCTGCCTACCAGACACAAGATTTCGAGAGCTACCTCTACCTCAG  
AATTGGTTTGTCTACTCGCATCAGTGGGCGAGTGGTGCAGACTACCCAGCTTACCAGAGCTTGTGAGCGGAAC  
TTTTCTGTGCTTGGACTGTGACAGCTGATCAGGATGTAGAACAGCAGTTCAAAATACACACAGCCAAACATCTG  
CCGAAATCCAGTTTGTGCGCAACAGGAGGAGATTCTTACTGGATACAAAATAATCAAGATTGTGTGATTTCAAAA  
GGTTCTGATTCAAGAGACCCAAAGCTGAGCTTCTCGAGGGAGTATCCCCCGAGTTTAGAAGTAATTTTAAGGGC  
TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACITTTACAGGGACACTGATTGTGTGCGCTGACGTCTC  
CAAGCTTAGCACACCAGGAGCAGTGCAGAAATAATTCCTGTGTGAGTGGTGTGTGATGGATATGAGACAGAAGG  
CATTCGAGGACTCCGGGCCCTTGGTGTTAGGGACCTTCTTATAGGCTGGTCTTTCTTGCTGCTGTGTGTGCGCC  
AACCAACCCAAGGTTTGGGGGAAAGAGCTCAGAGATGAGGAACAGACAGCTGAGAGCATTAAAGAACCAATGAC  
TGTGAAGAATGGGAGAAAGTGTGTGAGATGAGTCAAGATAAAATCTATACCACAATCTTTGTACCAGCCTGTT  
CCCTACTATACATGGCAATGATGAAGTAAACGGGGTGTCTGCTGTAGTCTCTTTGGTGGCGTTCCAAAGACAAC  
AGGAGAAGGGACCTCTCTTCGAGGGGACATAAATGTTGCATTGTTGGTGACCCAAGTACAGCTAAGAGCCAAAT  
TCTCAAGCAGCTGGAGGAGTTTCAGCCCCAGAGCTGTCTACACCAGTGGTAAAGCGTCCAGTGTCTGTGGCTTAAC  
AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTCAATTGAGGCTGGAGCTTTGATGGTGGCTGATAATGG  
TGTGTGTTGTATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTATGAAGCTATGGAACAGCA  
GACCATAATCATCTACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGGACGTCATTTTGGCAGCAGCAAAACC  
AATCAGTGGACACTATGACAGATCAAAATCATTGAAACAGAATAAAATTTGTGAGCTCCCATCATGTCCCAGTT  
CGATCTCTTCTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATTT  
GCATTCAAGAATTGAGGAATCAATTTGATCGTGTCTATTCCCTCGATGATATAGAAGATATCTTCTTTTGAAG  
ACAGTTTAAACCCAAGATTTCAAAGAGTCTAGAGGACTTCATTGTGGAGCAATATAAACATCTCCGCCAGAGAGA  
TGTTTCTGGAGTGACCAAGCTTCTATGGAGGATTACAGTGCACAGCTTGAGAGCATGATTCTGTCTCTGAAAGC  
TATGGCTCGGATGCATGCTGTGATGAGGTCCAACCTAAACATGTGAAGGAAGCTTTCGGTTACTGAATAAATC  
AATCATCCGTGTGGAACACCTGATGTCAATCTAGATCAAGAGGAAGAGATCAGATGGAGGTAGATGAGGGTGC  
TGTGTGCATCAATGGTGTGCTGACAGCCCTGCTCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA  
AGAGTGTCTGCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA  
CCTCAGAAAGGTGGAAGAAGAAGAGGACGAGTCAAGATTAAAGAGGAGCGAGCTTGTTAAGTGGTACTTGAAGGA  
AATCGAATCAGAGATAGACTCTGAAGAAGAACTTATAAATAAAAAAAGAAATCATAGAGAAAGTTATTCATCGACT  
CACACACTATGATCATGTTCTTAATTGAGCTACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAAGTGAGAGCTA  
TGAAAGAGATCCCTACTTGTGATGTTAACCTTAACCTTCTGCTCGAAGATGAGATAGTGAAGTAAGTACGACAGA  
GCTGAGGAATGTGGCACAGCACCTCGTGGCTGGAGCCTGGCTGGAGCTCTGCTAGGGACAGAAGTGTCTTTCG  
AAGTGTAGCTCCAGGATTTGTTTTCAGAAACAAGAATTGAGTTGATGGTCTATGTGTACATTCATCACAGGT  
TTCATCCAAACAGAGGCTTCAGACATCTCTTGTGTGTTTCTGTGCCAGTGAAGTTGGAACCAAAATAATGTGT  
AGTCTCTTAACCAATACCTTTGTTTTCATGTGTAAGAAAAGGCCCAATCTTTAAGGTATGTGCTGTCTATT  
GAGCAATAAATCTTTTTTCAATTGCCAGCTACTGCTTTTATTCATCAAAATAAAATAACTTGTCTG

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**FIGURE 171**

MDLAAAEPGAGSQHLEVRDEVAEKCKLFLDFLEEFQSSDGEIKYLQAAELIRPERNTLVVSFVDLEQFNQQL  
STTIQEEFYRVYPYLCRALKTFFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE  
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLDNTNKS RFVDFQKVRIQETQAE LPRGSIPRSLE  
VILRAEAVESAQAGDKCDFGTGLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGV RDLSYRLVFLA  
CCVAPTNPFRFGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTI HGNDDEVKRGVLLMLFGG  
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSPRAVYTSKGASSAAGLTA AVVRDEESHEFVIEAGALM  
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQINILSAP  
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH  
LRQRDGGSGVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLLNKSIIRVETPDVNL DQEEEIOME  
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASLR LGFSEYCRISNLIVLHLRKVEEEDESALKRSELVN  
WYLKEIESEIDSEELINKKRIIEKVIHRLTHYDHLIELTQAGLKGSTEGSES YEEDPYLVVNP NYLLED

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACCTTGTGTGCGGAACCTCCTCGGAACCATGCGCGTCCCTTTCCCTT  
GCACCTGTTAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGCTGACTTCTTTTATTGGT  
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATCTTCTAAGCAGTGGGA  
CGAGATGCCCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTGACAAATCCAGCAGCT  
AAAGTTTTAGTTGATATGTCAAGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA  
GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTATCCACAGACCATATAGCGGGTTGGAGA  
GAAGCCACGAAGGCTGCAAGAGAGGGCGCTGTGAGTTCGCAAGTTGATCATGGTTCGAGTGAAGTTAAATCCGT  
CAAGATTTAATGAATATTGCGGGGCACAACTATATCTCAAAACTTCTTACTCATCACAAAGACCACTTTACAAAG  
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTATATTATCAAGAAGCTAGGA  
GGAAGTTTGGCAGATTCTATTAGATGAAGGCTTCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA  
ATTGAAAATGCTAAAATCTTATTGCAAACTAGTGTATGGATACAGACAAAATAAAGATATTGGTTCGGGGTA  
AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT  
ATTCTTAAGCATGGAATAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT  
GCTGGTGTCAATGGCTATTGAGCATGCAGATTTTGCAGGTGTTGGAACGCCTAGCTCTTGTCACAGGTGGTGAAT  
GCCTCTACCTTTGATCACCAGAAGCTGGTGAAGCTTGGAAAGTTGCAAACTTATCAGGGAAGTCATGATTGGAGAA  
GACAAACTCATTCACTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTAACATTGTTTTGCGTGGTGCCACTCAACAA  
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAACCTGTAAAGGACTCTAGAACA  
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAAATAGAACACCAGGCAAA  
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCGGCTAT  
GACAGTGCAGACCTGGTGGCAGACTCAGGGCTGCTCAGTGAAGGCAATACCACCTGCTGGATTGGATATGAGG  
GAAGGCACCATTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTCAAGTGAAGCGCAGGTTCTTCTGAGT  
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACCTGTCCCTGAT  
CACCACCCCTGTAAAGCATTCCCACGTGCTGTCGATCTTTGGACCAAGTTTCTAGCAAAGTTGTGTTTGAAGATA  
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCATTATATCCTTAAGTTTGGATATTAGCTGACCTT  
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTAAAGGAGTTCATTTCG  
CATACTGGGCATTAAAAATAAAATTTGAACAATGAAGGAAAAAAGGAGAAAAAATAA

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**FIGURE 173**

MASLSLAPVNIKAGADEERAETARLTSTFIGAIAIGDLVKSTLGPKGMDKILLSGRDASLMVTNDGATILKNIG  
VDNPAKVLVDMRSRVQDDEVGDGTTSTVLAAELLREAESLIAKKIHPQTI IAGWREATKAAREALLSSAVDHGS  
DEVKFRQDLMNIA GTTSSKLLTHHKDHFTKLAVEAVLRLKGS GNLEAIHIIKKLGGSLADSYLDEGFLLDKKIG  
VNQPKRIENAKILIAN TGMDTDKIKIFGSRVRVDSTAKVAEIEHA EKEKMKEVERILKHG INCFINRQLIYNYP  
EQLFGAAGVMAIEHAD FAGVERLALVTGGEIASTFDHPELVKLG SCKLIEEVMIGEDKLIHFSGVALGEACTIVL  
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAH AVTQLANRTPGKEAVAMESYAKALRMLPTII  
ADNAGYDSADLVAQLRAHSEGN TTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVI LRVDNIIKAAP  
RKRVPDHHP C

## FIGURE 174

GCCTGAGTGAGTCTCTGGCGTCCCAAAATTGCCTGTTTTCTCGCAGGCTCTATTCCGTTGCTGGTTCGCCACCT  
CAGGGGAACGATGCGCCATGGAGTCCACAGCCACTGCCGCCGTGCCGCGGACGTGGTTTCTGCCGACAAAATTGA  
AGATGTCCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAACTATT  
GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT  
TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTCTTTTTCTATGGGAAATCACTTCTGGA  
GTTGGCAAGAAATGGAGAATGGTGTGTGGGAAACGCCCTTGGAAAGGTGTGCATGTGGAAAGAGGAAGAAGGAGAAAA  
AACAGAAGATGAATCTCTGTGTAAGAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTTGAGAGAAACAGGT  
TTATGACGCCATGGGAGAAAAAGAAAGGCCAAAAAAACAGAAGACAAGTCTTTGGCAAGCCTGAAACTGATAA  
AGAACAGGACAGTGAATGGAGAAGGTTGGAAGAGAAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA  
AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCCAAAAGGAGGAGCAGCACCAGAAGGACC  
GAATGAAGCTGAGGTCACCTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG  
AACTGATGTCCAAGAAGATGTCAGAGAAAAAGGAGGTCAGGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA  
GAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAAGCAGGGCAGTGCAGTGGAGGTAGAAGC  
AGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAGAAGGTAGTTACCTCTGA  
AAACGAGGCGAGGAAGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCTGAAGAGTACCAGAGGT  
GCAAAACAGAGGCTGCAGAGGCCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAAGCCTGGGCGAGGAGCTCC  
AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAAGTTGTAGGAGATCAGACTCCTATTGAACCCAGAGCTTC  
TATAGAAAGACTGCAGAAAAAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAGGGCAAGCTGGTTCTCAGTCA  
GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGACAGCTGGAGATGGGGTTGATACCAAGGTAGCCAGGGAGC  
TACTGAGAATCACCCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAGAAGAACAGATGAA  
AGAGGGTGAAGAACTGAAGCTCGGAAGAGGATGATAAAGAAAATGATAAGACTGAAGAAATGCCAATGATTC  
AGTCTTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCTGGGATATGCT  
GGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCAGACTTTATGCTGCCACGGCACATCTTAA  
ACTCGGAGAAGTTAGTGTGAATCTGAAAACCTATGTGCAAGCTGTGGAGGAGTTCCAGTCTTGCTTAACTGCA  
GGAACAGTACCTGGAAGCCACGACCGTCTGCTTGACAGAGCCCACTACCAGCTGGGCTTGGCTTATGGGTACAA  
CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAACTATTGAAGTCATTGAGAACAGAAATGGCTGTACTAAA  
CGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGAATCAAGAAAGAAATTGAGGAACATAAGGAACTGCTACCCGA  
AATTAGAGAGAAGATAGAAGATGCAAGAGGATCTCAGCGTAGTGGGAATGTAGCTGAACCTGGCTCTGAAAGCTAC  
TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTCAGTCTCCATGATTGCCAGTAGAAA  
GCCAACACGCGTGCTTCCCTCATCAAATTGTGTGACTGATATTTCACACCTTGTGAGAAAGAAGAGGAAACCAGA  
GGAAGAGAGTCCCGGAAAGATGATGCAAGAAAGGCCAAACAAGACCGGAGGTGAACGGAGGCAGTGGGGATGC  
TGTCGCCAGTGGAAATGAATTTTCGAAAACATGGAGGAGGAGGCTGAGAAATCAGCTGAAAACGCGGAGCAGCT  
GGAGGGGACACTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGTTAAGAGGGGGCACAGCCTCCTCCCAAGGG  
AAAGTGTTTTGTATATAAGTATTTTTTCACTTTTGAGGAGTATCTTTTGTATAAATTCATAAAGATTGTAAG  
CAAAAAAAA



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**FIGURE 175**

MAMESTATAA VAADVVSADKIEDVPAPSTSDKVESLDVDSEAKLLGLGQKHLVMGDI PAAVNAFQEAASLLGK  
KYGETANECGEAFFFYGKSLLLEARMENGVLGNALEGVHVEEEGEKTEDESLVENNDNIDEEAREELREQVYDA  
MGEKEEA KKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEPEQEKVDLTLDWLTETSEEAKGGAAPGPN  
EVTSGKPEQEVPDAAEEKSVSGTDVQEECREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTTLEKQGTAVEVEAESL  
DPTVKPVDVGGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEPVLP  
KDGAVNGPSVVGDTPIEPQTSIERLTETKDGSGLEEKVRAKLVPSQEETKLSVEESEAGDGVDTKVAQGATEK  
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPNDSVLENKSLQENEEEEIGNLELAWDMLDLA  
KIIIFKRQETKEAQLYAAQHLKLGEVSVESSENYVQAVEEFQSCNLQEQYLEAHRLLAETHYQLGLAYGYNSQY  
DEAVAQFSKSI EVIENRMAVLNEQVKEAEGSSEYKKEIEELKELLPEIREKIEDAKESQRSNGNVAELALKATLVE  
SSTSSTFGGGGSSVSMIASRKPTDGASSNCVTDISHLVRKKRKP EESPRKDDAKKAKQEPEVNGGSGDAVPS  
GNEVSENMEEEAENQLKRGAAVEGTLEAGATVESTAC

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FIGURE 176

GACTCCTAGGGGCTTGCAGACCTAGTGGGAGAGAAAGAACATCGCAGCAGCCAGGCAGAACAGGACAGGTGAGG  
TGCAGGCTGGCTTTCCCTCGCAGCGCGGTGTTGGAGTCTGTCTCCCTCAGGGCTTTTCGGAGCCTGGATCCCTC  
AAGGAACAGTAGACCTTGGCCGCGGGGAGTGGGGAGGGAAGGGGTGTCATTGGGCAACAGGGCGGCAAAAGCCCT  
GAATAAAGGGGCGCAGGGCAGGCGCAAGTGCAGAGCCTTCGTTTCCCAAGTCGCCTCAGACCCGACAGCATGAA  
CTTGCTTCCCTCGTCTGCTGTTCCCTCGGGGCCCTCGGACTGTGTCTGGCTGGCCGTAGGAGAAGGAGTGTTCAG  
TGGTGCAGCGTATCCCAACCCGAGGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAGAAAAGTGCCTGGCCCT  
CCTGTAGCTGCATAAAGAGAGACTCCCCCATCCAGTGTATCCAGGCCATTGCGGAAAACAGGGCCGATGCTGTG  
ACCCCTTGATGGTGGTTTCATATACGAGGCAGGCCCTGGCCCCCTACAAACTGCGACCTGTAGCGGCGGAAGTCTAC  
GGGACCGAAAGACAGCCACGAACCTCACTATTATGCCGTGGCTGTGGTGAAGAAGGGCGGCAGCTTTCAGCTGAAC  
GAAGTGCAGGCTCTGAAGTCTCGCCACACAGGCCCTTCGACAGGACCCGTGGATGGAATGTCCCTACAGGGACACT  
CGTCCATTCTTGAAATGGACGGGTCCACCTGAGCCCATTGAGGCAGCTGTGGCCAGGTTCTTCTCAGCCAGCTGT  
GTTCCCGGTGCAGATAAAGGACAGTTCCCCAACCTGTGTGCGCTGTGTGCGGGGACAGGGGAAAACAAATGTGCC  
TTCCTCTCCAGGAACCGTACTTTCAGCTACTCTGGTGCCTTCAAGTGTCTGAGAGACGGGGCTGGAGACGTGGCT  
TTTATCAGAGAGACACAGTGTTCGAGGACCTGTGAGACGAGGCTGAAAGGGACAGATATGAGTTACTCTGCCCA  
GACAACACTCGGAAGCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCCGGGTCCCTTCTCATGCCGTTGTGGCA  
CGAAGTGTGAATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGGAAGGACAAG  
TCACCGAAATTCAGACTCTTTGGCTCCCCTAGTGGGCAAGAAATCTGTCTTCAAGGACTCTGCCATTGGGTTT  
TCGAGGGTGCCCCGAGGATAGATTCTGGGCTGTACCTGGCTCCGGCTACTTCACTGCCATCCAGAACTTGAG  
AAAAGTGAGGAGGAAGTGGCTGCCCGGCGTGC CGGGTCTGTGGTGTGCGGTGGGCGAGCAGGAGCTGCGCAAG  
TGTAACCAAGTGGAGTGGCTTGAGCGAAGGCAGCGTGACCTGCTCCTCGGCCCTCCACACAGAGGACGTGCATGCC  
CTGGTGTCTGAAAGGAGAAGCTGATGCCATGAGTTTGATGGAGGATATGTGTACACTGCATGCAAAATGTGGTTTG  
GTGCTGTCTTGGCAGAGAACTACAAATCCCAACAAAGCAGTGACCTGTATCTTAATCTGTGTGGATAGACCTGTG  
GAAGGATATCTTGCTGTGGCGGTGGTTAGGAGATCAGACACTAGCCCTTACCTGGAACCTCTGTGAAAGGCAAGAAG  
TCTTGCCACACCGCGGTGGACAGGACTGCAGGCTGGAATATCCCCATGGGCGTGTCTTCAACACAGACGGGCTCC  
TGCAAAATTGATGAATATTCAGTCAAAGCTGTGCCCTGGGCTGACCCGAGATCTAATCTCTGTGCTCTGTGT  
ATTGGCGCAGCAGGAGGTGAGAATAAGTGCCTGCCAACAGCAACGAGAGATACACGGCTACACTGGGGCTTTC  
CGGTGCTTGCTGAGAATGCTGGAGACGTTGCATTGTGAAAGATGTCTGTCTTGCAGAACTGATGGAAAT  
AACAATGAGGCATGGGCTAAGGATTTGAAGCTGGCAGACTTTCGCTGCTGTGCTCGATGGCAACCGGAAGCCT  
GTGACTGAGGCTAGAAGCTGCCATCTTGCCATGGCCCCGAATCATGCCGTGGTGTCTCGGATGGATAAGGTGGAA  
CGCTGAAACAGGTGCTGCTCCACCAACAGGCTAAATTTGGGAGAAATGGATCTGACTGCCCGGACAAGTTTTC  
TTATTCCAGTCTGAAACCAAAAACCTTCTGTTCATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAAAC  
ACATATGAAAAATATTGGGACCACAGTATGTGCGAGGCATTACTAATCTGAAAAGTGCTCAACTCCCCCTC  
CTGGAAGCCTGTGAATTCCTCAGGAAGTAAACCGAAGAAGATGGCCCCAGCTCCCCAAGAAAGCCTCAGCCATT  
ACTGCCCCAGCTCTTCTCCCAAGGTGTGTTGGGGCTTGGCTCCCCGCTGCTGAAGGTGGGATTGCCCATCCAT  
TGCTTACAATTCCTGCTGCTGCTTAGCAAGAAGTAAATGAGAAATTTTGTGATATTCAAAAAAA

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**FIGURE 177**

MKLVFLVLLFLGALGLCLAGRRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDSPIQCIQAIENRAD  
AVTLDDGGFIYEAGLAPYKLRPVAAEVYGTERRQPRTHYYAVAVVKKGGSFQLNELQGLKSCHTGLRRTAGWNVPTG  
TLRPFLNWTGPPEPIEAAVARFFSASCVPGADKGQFPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLRDGAGD  
VAFIRESTVFEDLSDEAERDEYELLCPDNTRKPVDKFKDCHLARVP SHAVVARSVNGKEDAIWNLLRQAQEKFGK  
DKSPKFQLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSGYFTAIQNLRKSEEEVAARRARVVWCAVGEQEL  
RKCNQWSGLSEGSVTCSSASTEDICIALVLKGEADAMSLDGGYVYTACKGLVPVLAENYKSQQSSDDPDNCVDR  
PVEGYLAVAVRRSDTSLTWN SVKGGKSCHTAVDRTAGWNIPMGLLENQGTGCKFDEYFSQSCAPGSDPRS NLCA  
LCIGDEQGENKCV PNSNERYYG YTGAFRC LAENAGDVAFVKDVTVLQNTDGN NNEAWAKDLKLADFALLCLDGKR  
KPVTEARSCHLAMAPNHAVVSRMDKVERLKQVLLHQQAKFGRNGSDCPDKFCLFQSETKNLLFNDNTECLARLHG  
KTTYEKYLGPOYVAGITNLKKCSTSPLEACEFLRK



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**FIGURE 178B**

GTGTCAATGAATGCCGGGACAGAGAGGGGACAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAACTGCCATTGTCGTCTTTATGTCGGCCACCTAGTGCTTCCACTTCTATGCAAATGCCCTCCAGGCCATTCACTTCCC  
CAATCTTGTGCTGTATGGGTATGTGTTAAACATGCACGGTGAGGCCGGGCGCAGTGGCCTCACGCCTGTAATC  
CCAGCACTTTGGGAGGCCGAGGCCGGTGGATCATGAGGTCAGGAGATCGAGACCATCTGGCTAACAAAGGTGAAA  
CCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGCGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGG  
CTGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCACTGAGCCGAGATTGCGCCACTGCAGTCCGCGAG  
TCTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAACAAAAACAAAAAACCATGCATGGTGCAATCAGC  
AGCCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTCTG  
TGAGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTAAAAAATGAATTTGGC  
CAGACACAGGTGCCTCACGCCTGTAATCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCCAGGAGTTGG  
AGACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACAAAAAGTTAAAAATCAGCTGGGTATGGTG  
GCACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCA  
GTGAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCATTTTCAGAAATACAACATATAAA  
AAAAATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTT  
GCACTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTG  
TCCCCAGGGACAAAAACACTGTGTCCCCCAGTGCAAGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAA  
ATGCGTCCCTGTACAGATAGTGGGATTTTTTTGTTATGTTTGCACTTTGTATATTGGTTGAAACTGTTATCACTT  
ATATATATATATACACATATATATAAAATCTATTTATTTTTGCAAAACCTGGTTGCTGTATTGTTTCAGTGAC  
TATTCTCGGGGCCCTGTGTAGGGGGTTATTGCCTCTGAAATGCCCTCTTCTTTATGTACAAAGATTATTGACAGA  
ACTGGACTGTGTGAACGCTTTTTGGGAGAATGATGTCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTG  
TCACTTTTAAACCACGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAATTTCTTAAATG

**FIGURE 179**

MGPGWGLRWTVALLAAAGTAVGDR CERNEFQCQDGK C I S Y K W V C D G S A E C Q D G S D E S Q E T C L S V T C K S G D F S C  
GGRVNR C I P Q F W R C D G Q V D C D N G S D E Q G C P P K T C S Q D E F R C H D G K C I S R Q F V C D S D R D C L D G S D E A S C P V L T C G P  
A S F Q C N S S T C I P Q L W A C D N D P D C E D G S D E W P Q R C R G L Y V F Q G D S S P C S A F E F H C L S G E C I H S S W R C D G G P D C K D K  
S D E E N C A V A T C R P D E F Q C S D G N C I H G S R Q C D R E Y D C K D M S D E V G C V N V T L C E G P N K F K C H S G E C I T L D K V C N M A R  
D C R D W S D E P I K E C G T N E C L D N N G G C S H V C N D L K I G Y E C L C P D G F Q L V A Q R R C E D I D E C Q D P D T C S Q L C V N L E G G Y  
K C Q C E E G F Q L D P H T K A C K A V G S I A Y L F F T N R H E V R K M T L D R S E Y T S L I P N L R N V V A L D T E V A S N R I Y W S D L S Q R M  
I C S T Q L D R A H G V S S Y D T V I S R D I Q A P D G L A V D W I H S N I Y W T D S V L G T V S V A D T K G V K R K T L F R E N G S K P R A I V D  
P V H G F M Y W T D W G T P A K I K K G G L N G V D I Y S L V T E N I Q W P N G I T L D L L S G R L Y W V D S K L H S I S S I D V N G G N R K T I L E  
D E K R L A H P F S L A V F E D K V F W T D I I N E A I F S A N R L T G S D V N L L A E N L L S P E D M V L F H N L T Q P R G V N W C E R T T L S N G  
G C Q Y L C L P A P Q I N P H S P K F T C A C P D G M L L A R D M R S C L T E A E A A V A T Q E T S T V R L K V S S T A V R T Q H T T T R P V P D T S  
R L P G A T P G L T T V E I V T M S H Q A L G D V A G R G N E K K P S S V R A L S I V L P I V L L V F L C L G V F L L W K N W R L K N I N S I N F D N  
P V Y Q K T T E D E V H I C H N Q D G S Y P S R Q M V S L E D D V A

AAGCGATGCTGGGCCCGCTGGATCTCCAAGGTCCTCGGCTGCTGGGGGCAATCCACAACCCAAACAGGTA  
CCAGAGGTTTACTTGCTGGTGTTCAGACAGTAACCTTAATTCACAGGAGATGGTATTGGCCACAGAAATTCAGTCTG  
CAGTTAAGAAGATTTTGTATGCTGCCAAGCACCTTACAGCTGGGAGGAGCGAACGCTACGACATCCATCAAGGAC  
CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGACAAGATGGGCTTGAAGGCCCTT  
TGAGACCCCAATAGCAGCGGCTACCCCTCTATGAATTTACTGCTGGCAAAACATTTGACCTTTACGGGAATG  
TGCCACCATGTGCTCTATCTAGAAGCTATAAAACCCCTTACACCGATGTAACATATTGTGACCATTCGAGAATCA  
CAGAAGGAGAATACAGTGAATTGAGCATGTGATTGTTGATGGAGTCTGCAGAGTATCAAGCTCATCACCAGCA  
GGCCGAGCAACGCCATCTGCTGATTGTCCTTTGAGATTGCCCGGAAACCAACCCGGAGCAACGCTACCGCGGTCG  
ACAAGGCGCAACATCATGGCGATGTACAGATGGGCTTTTCTACAAAATACGGGAAGTTCGAGAAGCTGTAAAG  
ATATTAATTTAATGAGATGTACCTTGATACAGTATGTTTGAATATGGTACAAGATCTTCCCAATTTGATGTTCT  
TTGTTATGCGCAAAATTTGATAGGACATCTTATGACTCTGTGTGACAGGATGATCGGAGGTCTCGGTGTGACAC  
CAAGTGGCAACATTTGAGCAATGGGGTTGCAATTTTGTAGTCGGTCTATGGGACGGCTCCAGACATGTGACGA  
AGGACATGGCGAATCCCAACGCCCTCTGTCTAGTGGCGTGATGATGCTGCCCAATCGGACATTTTGACCATG  
CTCGAAGAATTTAGGGCTGCGTGTGTTGCTACAATTAAGACGGGAAGAGCTTGACAAAAGATTTGGGAGGCAATG  
CAAAATGCTGACATCTCACAGAGGAATTTGCTGCCGAGTAAAGATTTAGATTAACACTTTCACAACTGGCAT  
TACATCAGTCACTCAATGGACACCACTGAACCTCTGTTTGAATACACTACGTATGTATGATGATTGTTTGCTT  
GTTTCTGACAGTACATTTTATGATCTGGCCCTTTCTTACAACAAATCTGTGCAAAAGATCGAGTGGATGTCCCT  
AGGCTGTGTTTCAAAGAACTTTTCCAAGTGTCTGTTTATTTAATGTTCTACTCGTAATGTGTTTTTGT  
TAAACTCTGAGTGGAGTGTATCATTTGCTATCTCAAACCAATTTACACTTAAGTTAAAAATGTTTCTCTCAGCT  
GTAAATAACAGGATACAGAATTAACAAGAGAAAAATGCTCAACTTTTAAAGAAAAAACCTTATTTCTCGGTTTT  
GAAAAAATCATGTAAGAAATAAAACAGGATTTGACATAATAGCAAAAATGACACTTCTTAAACTTAATGGGCA  
CAAGAGAAATTTCTCGGAAAGTTCACATAAAAAGAGTGAATGTGGTATTTCTCAAATGATAGGAAAAATAGA  
GCAGAGATTGTCTTTACAGAAATTTACTGAGTGTGAATAAAAACTTCAGATCCAGAAATATATATAGAGATA  
TAATTTTGTGTAATAGACAAGGTAATATATTGGATACAAGCAAAATGATTTGTGTTCAATTTTGTG  
TGCTTGTAGATTTAATATCTTTCCAAGAGCTTTAATGAAGCAGAGAGCTAGTACTTCATTTCACTGGATACA  
TTTTACAGCATAGTGTGACAGGCTCTGACGGCTGACGTGAGAGCCAGAGGGCTGAGTGTATTGTAACAT  
ATTTCTGATGTGTGCTGTGGGAATGGACCACACTACAGCAGTAGTCTGTGGGGCGGATCTGCCGAAAGGCC  
GAACACATGTATTTTGGCTGCAATTTGAGGAACATGGGATGCTATGTTTGTGTTTACGACAGCTGCCCTTCTC  
TATCCCAAAGACCAAAATTACTGCCCTCTGCTCAGCAGTACAGTATAAGATGACATTTCCAAGACTGGAGCA  
ACTCAGCCTGAGTTAAATACAAAAATATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA  
GCTTTTGACCCCTCAGGCATCTCTTTTCTCTGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT  
AATTTCTAGACACTCACTATTTCTGAACAGTTCAGTCTGTGCCCCACCAAAAGCAACTCATGGCTTCTCT  
TGCCCCTTGTGATAACATTTGCAAACTGTGGCTTTGCAAAATGTCAACCCAGGTCAACAGGGGATTTTTTTTTTTA  
GCAATGATATCCCTGTGGGCTCATTTTAAAGCTGTGAACGCCGCCCCAGCTATAATCTTAAATGTATTTCT  
CTCTGTTTAAAGCTGCTGCTCTCTCTGTTTCTAGGATGTGTCAGGATTAAGCTGGGCTCTGGGTTCAAGTAAT  
T

AAA

**FIGURE 181**

MAGPAWISKVSRLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAMKIFDAAKAPIQWEERNVTAIQGGP  
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLRLKTFDLYANVRPCVSI EGYKTPYTDVNI VITIRENTE  
GEYSGIEHVIVDGVVQSIKLI TE GASKRIA EFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI  
KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAPDIAGKD  
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD



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FIGURE 182A

CAAGTGCCTGCGCGGCCCTTCCCTCCCGCTCCCGGCCCTCCCGGAACCGCGGCTGAGCTACGGT  
CGCGGACGAGTGGAAACCGAGACTGCCCGCGGAGCGCGGATGAGCGCCCTCGCCACCCGCTGCCAGGCC  
CGGCCTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTGTATGTTGAAATTCCTCTCACC  
ATGTTTCAGCATAAAGTACCATTCTTAATGATTATCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGCATTGCA  
ATC**ATG**GTGCAAAATACCATGCTCCCGAGTGAGAGTGTACAAATACCCCTTTGAATTAATATGGGCTGATGAA  
AGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTCTGTGGGACAGTACACTGTGATGAATTCAAGAGCGAAGT  
GGGGCTATTTCATGTCATTGAAAGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAAG  
GTTGATTATGTTTATTTTGTCCAGAAAACTCACTGAATTTCTCGGGAACGTACTTTGCACATTGAGGCTTATAAT  
GAAACGTTTTCCAATCGGGTCATCATTAAATGAGCATTGCTGCTACACCGTTACCCCTGAAAATGAAGATTGGACC  
TGTTTGAACAGTCTGCAAGTTTAGATATTAATACTTTCTTTGGTTTTGAAAGTACAGTGGAAAAAATTGCAATG  
AAACAATATACCAGCAACATTAATAAGGAAAGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAGGC  
ATAACCTTTGTGCCCGTGGAGTCGCGCTTCCATCACGCCCTCTTCAGAGACATCTTCATCATCTCCAAGAAA  
CAAGCAGCGTCCATGGCCGCTGCTCATCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAGC  
CCCAGTGCACCTGAGCCGTTGGTGGGACCCCTGACGACAACTAGATGCCACCACATCAAGAGATACCTGGGC  
GATTTGACTCCGCTCGAGGAGAGCTGCCCTATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAAAT  
CCAAAAGTAGAGCATATTCTTCGGTCTCCTCGGTGACCGGATTTAATATGACAAAGCCAGAGAGATCATGTGT  
CAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTTGAAACCTTGGACCCCTCCTCAGGTCCTTCAG  
GATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCTCTACGTGCTCAGGCTGGGCGAGATG  
GACACCAAAGGCTTGGTGAGAGCGCTCGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCGTAATGAAGAAGCG  
CTAAGGCGATGCGAAGAGAAATCAAAAGTCTTTGGTCGGCTATCAGCTCATGAGCTGCCCTGGTGGATCTGGAA  
GGGCTGAACATGCGCCACTTTGGAGACCTTGGTGAAAGCGCTGCTGCGGATCATCGAGTGGTGGAGGCCCAAC  
TACCTTGAGACATGGGCGCCCTTCTCATCTGCGGGCGCCAGGGTATTTCTGTGCTCTGGACGCTGGTTAGT  
CCGTTTCATTGATGACAAACAGAGAAGGATTCCTCATTATGACAGGAATGACTACACAGGCTTCGGAGGCCCT  
CTGGATTACATCGACAAAGAGATATTCAGATTTCTGAGTGGGAGTGATGTCGGAAGTGGCAGAGGTTGGA  
CTGGTCCCCAAATCTCTGTACCGGACTGACAGGAGCTGGAGAACGAGACCTGAAGCTCTGGAAGTACAGCATC  
TACCAGTCTGAAGCGTCTCAAAGGAGCCACATGAGATTTCTATTGATGTTGGATGCTCTGCTAGTCACT  
ACTTGGGATTTGACGTGTGCAAAAGGGACATTTGTGTTAAACATCTATCACTCCAAGAGGTGCGCCACAAACCC  
AAAAAGGACTCCCTGGGAGCCACAGCATCACTCTCCGGGTGGGAACAAATGTCAGCTCATAGACAAAGCTCG  
CAGCTGGGCGCGACTACAGCATGGTGAGTGCCTCTGATCTGCAAGAAGGAGAAAGCTGCAGGGTTCCTCAT  
GTGACCACTTCTCCAGCTGCCAGCTCCAGCTCCAGTCCATGATCTCCAGG**TAG**TGCGCGGCTGCCTAGCTAGTGT  
CGCAGAGGGGACGGCGCCCTCTCGGACAGCAGCTGCACCCGCCACAGCGGCGACATTTGACAGACTCTCT  
TCACCTCTAGATAGCAAAATAGCTCTCAGATGGTAAACGTAGTCTGTTGATCCCAAACACTACCTTTGGCAGGTAGTT  
TTAACTCTGATCTCAACTTAACCTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACAGAGCGCAA  
GGGCTCTCTTGAAGAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAAT  
TTTTCAACGAATCCGATTGCTCAATTAGTGAATGAATTCCTGTGACATCTCCAGAGTGGGCCCTCTCACC  
TGGGACGGAAGCTGCCAGCTCGCTTCCCCAAGCTGCCTCATGGCCGACGCGCCCTCAGGCCCCCATGCTTC  
CCGCGAGTCAAGTGGTCTGTGGAATTAGGGCCAGCCCTTGAGGTCTTATCTCTGAGGATTGAGGATTGCTCT  
GCGGAGTACCTTGTCCAGGGCCAGACACCCACACCCACTGCTGCAGTGGGCGGGGGCTCAGGAGGG  
GCTCTCAGGGACTCTGTGACTCCAGAAAATGCTGCCATCGTTAAACATTACTTTCTTTCTCTCTTTCAA  
ATCTTTTGTACTTTTATAGAGCAGGATTTTCTGTATGTGAATTTGGGTGGGGGGTCTCTCCCGTTTCTCTC  
GTGCGTGCCTCTCAGCTGCACTGCACTGCCAGCTGCCAGCCAGTGTAGCCATCTCTCTGTGCGCTCTGAGGCTCA  
TTGCTCTCAGAGCCAGACAGTTCAGCCACTAGGAGGCCGCTTTGGAACCAAGCAAGTGCATTTGCCATCTGAC  
CTGTCCATGGGGTTTTATTAGTAGTAAAGCAGCAGCTCTCGCATCCACTTCAGGTTGGCTGTGGCATGTAGAG  
TCCTGCTCTTTGTACATGGGAATTTGGACTACGCTGTGTGTGTGTGATGCTGTGTGTGTGTGATGTGTG  
CATGACGGTGGGGTGTGTGGGGGACGGGTGAGTGGAACTTAGTTTGAAGTAATGAAGGAATCTTCACAGAAGC

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**FIGURE 182B**

AAATCAGAATATGGGATTGTGTTGCCCTTTACATTTTGTGTTAATTCTGATTTTAAAGCCTGCTCTATCTGGTAC  
AGGCCCTTATTTTTTTCAGCTTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGGGATG  
GCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCACGC  
GGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGCTCAGCTCCGCTCGAAGGCACTGTGT  
GGGTGCTGCGTGACTGGAGAGCTGTGTGGAGGCCATGTGTGCCCGTGCAGGGATCAGGAGGGCGGGGAGGGAC  
CGAGCAGCCCTCTTGCCCGTTCGGGTGAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGTGCTG  
TGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCTTTGC  
TTCCGGAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTA  
GTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGG  
TTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTA  
GGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGCTAGTAG  
GTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGG  
TAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGC  
TAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAG  
GGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGG  
TAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGC  
TGCTTCCACCTGGTGCTTCTGTTCCCAATCACAAGGGCCTGAAGGTGGTCCCTGCTTCTCTTCTCTTCTCTC  
TGTGCTCAGATGGCGATTTTGTGTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCCTCATGTGCCAGAGAT  
GTTTTAGAACTGTTTGAATTGACGCCATCCCCGCCCTCCCAAGCTGAAGATCTGTTCTTTTTAAGTTGATT  
CGGGAGTGGCATTCTTTTATACCCAAGACTGTAGTGCACTTTGAAGAGCTCAAAGCACATGCCGCACAAATGC  
TTACAGGGTTTCTCCCGAGTAATCCAATCTCACTCCCTTGTAAAGGAATTCGAGGACAGTATGGTTTGAGTA  
TGCAGTTTGCATCGTGTCTTACCTTTAGTACCTTGCCACTCTTTTAAACGCTGCTGTCAATTTCCCATTTCTTA  
GTACTAATGATTCTTTGATTCTCCCTCTATTATGCTTAATTCACTTTCCTTCCTAAATTTGTTATTGTCATATC  
AAATTCGTAAATGTTTTGTAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAGATTTTTT  
ATTGTTATCAATAATAAATGTGAACATTTTAAAG

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**FIGURE 183**

MVQKYQSPVRVYKYPFELIMAAAYERRFPCTCLIPMFVGS DTVSEFKSEDGAIHVIERRCKLDVDAPRLKKIAGV  
DYVYFVQKNSLNSRERTLHIEAYNETFSNRVIINEHCYTVHPENEDWTCFEQASLDIKSFFGFESTVEKIAMK  
QYTSNIKKGKEIEYYLRQLEEEGITFVPRWSPPSITPSSETSSSSSKKQAASMAVVIPEAAKKEGLSGDALSSP  
SAPEPVVGT PDDKLDADHIKRYLGDLTPLQESCLIRLRQWLQETHKGKIPKDEHILRFLRARDFNIDKAREIMCQ  
SLTWRKQHVDYILETWTPPVQLQDYYAGGWHHHKDG RPLYVLR LGQMDTKGLVRALGEEALLRYVLSVNEERL  
RRCEENTKVFGRPISSWTCLVDLEGLNMRHLWRPGVKALLRIIEVVEANYPETLGRLLILRAPRVFVPLWTLVSP  
FIDDNTRRKFLIYAGNDYQGPGLLDYIDKEIIPDFLSGECMCEVPEGGGLVPKSLYRTAEELNEDLKLWTETIY  
QSASVFKGAPHEILIQIVDASSVITWDFDVCKGDIVFNIYHSKRSPQPPKKDSLGAHSITSPGGNNVQLIDKVMQ  
LGRDYSMVESPLICKEGESVQGSHVTRWPGFYILQWKFHMPACAASSLPRVDDVLASLQVSSHCKVMYYTEVI  
GSEDFRGSMTSLESSHSGFSQLSAATTSSSQSHSSSMISR

AATTC CGCGGAATCATCGGAATCCTTCACCATGGCATCCAGCCCGCCAGCGTCGGCGAGGCAATGATCCTCTC  
ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCCACCATTT  
GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCTGGAGGAAAGAGGATGGAGAGGAGCTCATTTGGA  
GATGGCATGGAAGGGACTACCGGCCATCCCAGAGCTGGACGCCATGAGGCGCAGGGGACTGGCTTGGATGAT  
GAGGACGTAGAGGAGCTGACGGCCAGTCGAAGGGAGGCAGCAGCGGCCCATCGCGCAGCTGACCGGAGCTGG  
CCGGGGCTGGGCGCATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACAGGAGCGCCCTGCCCGCAAGC  
GCCGCCAGTGGAGCCGCGCAGGAGGACGCCGAGGAGGACGAGCAGATGATTGAGAGCATCGAAGCTTGGAGGAT  
CTCAAAGGCCACTCTGTGCGCGAGTGGGTGAGCATGGCGGGCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC  
TTCTCTGCGCACTCAGCTGCAGCAGCCAGCCCAACGCTCTTCAAGGAGCGCATCAGCGACATGTGCAAGAGAAAC  
CGTGAGGCTTGGTGGTAACTATGAGGACTTGGCAGCCAGGGAGCACGTGCGGCTACTTCTGCTGAGGCA  
CCGGCGGAGCTGCTGCAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC  
ATCACCAACACATCCATGTCGCGCATCTCCCACCTGCCTCTGGTGGAGGAGCTGCGCTCGCTGAGGCAGCTGCAT  
CTGAACCAGCTGATCCGCACCACTGGGGTGGTGACCACTGCACTGGCGTCTCGCCCACTCAGCATGGTCAAG  
TACAACGTGCAACAAGTGCATTTCTGCTCCTGGGTCTTTCTGCCAGTCCAGAACCAGGAGGTGAACCAAGGCTCC  
TGCTCTGAGTGGCAGCTCGGCCGGGCCCCTTGAGGTCAACATGGAGGAGACCATATCAGAACATACCAAGCTATC  
CGCTCCAGGAGAGTCCAGGCAAGTGGCGGCTGCCCGGCTCCAAGGACCGGCACTTCTCTCGCAGAT  
CTGGTGGACAGCTGCAACGCAAGGAGCAGAGATAGAGCTGACTGGCATCTATCACAAACATATGATGGTCCCTC  
AACACTGCCAATGGCTTCCCTGCTTTTGCCACTGTCATCTAGCCAACCAAGCTGGCCAAGAAGGCAACAAGGTT  
GCTGTAGGGGAAGTACCGATAGAGATGGAAGATGATGATCTCCAAGGATCAGGCATGAGTCTCTCGCAGAG  
ATCTTTGCCAGCATTGCTCCTTCCATCTATGTCATGAAGACATCAAGGAGGCCCTGCTCTGGCCCTGTTTCGGA  
GGGAGGCCAAAAACCAGGACGCAAGTGCAGGACAAAGTGCATGATATCAACGTGCTTTTGGCGGAGACCTTGGC  
ACAGCGAAGTCCGAGTTTCTCAAGTATATTGAGAAGTGTCCAGCCGAGCCATCTTACCACATGGCCAGGGGGCG  
TCGGCTGTGGCCGTACAGGCGTATGTCCAGCGGCACCTGTACAGCAGGAGTGGACCTTGGAGGCTGGGGCCCTG  
GTTCTGGCTGACCGAGGAGTGTCTCATTTGATGAATTTGACAAGATGAATGACCAGGACAGAACCAGCATCCAT  
GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGCTGGCATGTCACCTCCCTGCAGGCTCGCTGCACGCTC  
ATTGCTGCCGCAACCCCATAGGAGGGCGCTACGACCCCTCGCTGACTTTCTCTGAGAAGCTGGACCTCACAGAG  
CCCATCATCTCACGCTTTGACATCTGTGTGTGGTGAGGGACACCGTGGACCCAGTCCAGGAGCAGATGCTGGCC  
CGCTTCGTGGTGGGAGCCAGCTCAGACACCACCCAGCAACAAGGAGGAGGAGGGCTGGCCAATTGGCAGCGCT  
GCTGAGCCCGCATGCCCAACAGTATGGCGTGGAGCCCTGCCCAAGGAGTCTGAAGAAGTACATCATCTAC  
GCCAAGGAGAGGGTCCACCCGAAGCTCAACCAGATGGACAGGACAGGACCAAGTATGACAGTCCAGCTGAGG  
AAAGAATCTATGGCGACAGGCAGCATCCCATACGCTGCGGCACATCGAGTCCATGAGTCTAGCGGAGGCCCA  
CGCGCGCATCCATCTGCGGGACATGTGATCGAAGACGAGCTCAACATGGCCATCCGCTGATGCTGGAGAGCTT  
CATAGACACAGAAGTTTCAGCGTCATCGCAGCATGCGCAAGACTTTGCCCGCTACCTTTTCATTCGGCGGTGAC  
AACAATGAGCTGTGCTCTTCACTGAAGCAGTTAGTGGCAGAGCAGTGACATTCAGCGCAACCGCTTTGGG  
GCCGACGAGCAGATTTAGGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCAACCAACCTC  
TCTGCATTTTATGACAGTGTAGCTCTTCAGGATGAACAAGTTACGCCACGACCTGAAAAGGAAAAATGATCTGCAG  
CAGTTTTCAGGCCCTATGCCATCCATAAGGATTCTCTGGGATTCTGGTTTGGGGTGTGTCAGTGCCCTCTGTGCTT  
TATGGACACAAAACAGAGCATTGATGAACCTCGGGGTACTAGGGTCAAGGCTTGGCGAGGATGTCTGGCTGCA  
CCTGGCATGACTGTTTGTCTTCCAAGCCTGCTTTTGCTTCTCACCTTTGGGTGGGATGCCCTGCCAGTGTGTC  
TTACTTGGTTGCTGAACATCTTGCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG  
TTCAGAGTCTGCTGCTGTGGTTAGGTGTTAGCCCTTCTTACATGCTGACAGGAGCTGCTGCCCTCTTGGGCT  
GAGTTGCGTATTCAGGCTGCTTTTGCTCGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGAATCGTTTTTCAGT  
TCTCTCAGGTTTTCTGTGCCCTGTGGTGGAAAGAGGCACGACAGTGCACGCGCAGCGTTTGGGCTCCTCAGTCCG  
AGGGGTGGGATGTGAGTCAGGGATTATCCACTCGCCACAGTTATCAGCTGCCATCTGCTGCTGCTTTCTCC  
CACTCTCTTATTTGTGCATTCGGTTTGGTTTCTGTAGTTTTAAATTTTAAATAAAGTTGAATAAAATATAAAAAA  
AAAA

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**FIGURE 185**

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTGEPLEEEEDGEELIGDGMERDYRAI  
PELDAYEAEGLALDDEDVEELTASRREAADGPGCTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGATEDG  
EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED  
LAAREHVLAYFLPEAPAEELLQIFDEAALEVVLAMYPKYDRITNHHVRISHLPLVEELRSLRQLHLNQLIRTSGV  
VTSCTGVLPQLSMVKYCNKCNFVLGPFQSQNQEVKPGSCPECQSAAGPFEVNMEETIYQNYQRIRIQESPGKVA  
ARRLPRSKDAILLADLVDSCNAGDEIELTGIYHNNYDGS LNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV  
KMITSLSKDQQIGEXIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVVRGDIVVLLCGDPTAKSQFLKYI  
EKVSSRAIFTTGQASAVAVTAYVQRHPVSREWTLAAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISI  
SKAGIVTSLQARCTVIAAANP IGGRYDPSLTFSENVDLTEPIISRFDILCVVRD TVDPVQDEMLARFVVGSHVRH  
HPSNKEEGLANGSAAEPAMPNTYGVPELPQEVLLKYYIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP  
ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRRHTEVQRHRSMRKT FARYLSFRDNNELLFLK  
QLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHNLSAFYDSELFMRNKFSDHLKRKMILQQF

## FIGURE 186A

TGAATTCTGTAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTCATCTA  
GCCTGTGACTCAATGGAGGGGCGGGCAGCGAGTGCTTAATGCTGTCTTAACCTAGTGTAGGAAAAACCGCTCAACC  
CACCCTGCCGAATGAGATATAAGAACTTATGGCAAGGGCCTTATATGACAACTGCCAGAGTGTGCCGAGGA  
ACTGGCCCTTCGCAAGGGAGACATCTGACCGTCATAGGACGAGAACACAGGGGAGTGTGAAGGATGGTGGCTGTG  
CTCGTTTACACGGTCCGCAAGGCTTGTCCAGGCCACCGGGTGAAGCTTCTGATTTGGTCCCATGTGAGGACACTGC  
CTCCAGTCAACGAGCAGCTGCCCTTGTGACTGATGACGACAGACCTTTGGCCACACAGAAGCTCTATCAAGTGCCAAA  
CCCCACAGGCTGCTCCCGAGACACCATCTACCAAGTGCCACCTTCTTACCAAAATCAGGAAATTTACCAAGTCCC  
CACTGGCCACGGCACCCAAAGAACAGGATATATCAGGCTGCCACCATCAGTGCAGAGAAGCATTTGGGGGAACCCAG  
TGGGCCCCACGTGGGTAAAAGGTGATAACCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG  
ATACCAAAGGATGCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC  
AAAAGGCCCTGTGTTTTTCAGTTCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCTTACAAAAGG  
GGTATATGCCATTCCGCCCTCTGCTTGGCCGGATGAAGCAGGGCTTAGGGAAGAAAGACTATGACTTCCCCCTCC  
CATGAGACAAGCTGGAAGGCCGACCTCAGACCGGAGGGGTTTATGACATTCTTCCAACCTGCACCAAGCCGACG  
AGGGAAGGACCTTCATGTAAATACAACATGTGACATTCCAGGAGCTGCAGAACCGGTGGCTCGAAGGCACACAG  
CTGTCTCCCGAATCACCACCCCGCACTCGGACAGTCACTGGGCTCTCAGAACGACGCATATGATGTCCTCCG  
AGCGCTTCAGTTTCTTGACGCCACCGAGAACACAGTGAAGAAAGCAACCCAGGAAGGGATGGTGTTTATGA  
TGTCCTCTGCTATAACCCGCCAGATGCTAAAGGCTCTCGGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC  
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGCTCTTCCACCTCTCCAAGGAGTCTCTACGTGCAGCTCCCC  
AGCTCAGGACAAGAGGCTCTCTCTGTGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGACGGCCCTGA  
GATGGGTGTCTCCAGCCTAATGGCACTGTGCTACTACCGACTGGCGGTGTACGGATATATGGAAGAGACATCAA  
TGAATACGCACAGCAGTGGACAAAGTGAGGCTGTCTTGAAGGAGTCACTCTCATTTGTCAAGGGAGCTGTTC  
AATGCTGCCCTGCTCCCGGACCTCATCTCCACAACAAGATGAAGCGGGAGCTGCACAGAGTCGAAGACTCCCA  
CCAGATCTCTGAGTCAAAACAGCATGACTTAAATGAGTGCAGCTGGTCCCTGTAATCTTGGCCATCAACAAAGC  
CCAGACAAGGTGTACGATCTGGACGGTTTGTGATGGTGGCAAGACGGTCCCGCATGACGCCAAGCAGCTCAC  
CACAACCATCAACACCAACGCAGAGGCCCTCTTCAGACCCGGCCCTGGCAGCTTGCATCTGAAGAAATGGGCGGA  
GAGCATCTGAAGCTCAACGGAGTACCCACACGGTGGCTCCCGAGGACAGCTGCTGCATCTCTGGTACCCAAAGC  
CCAGGCCACACAAGGCACTGCCCGAGGCCCTGAGCAAGGACGAGGCCCTGACTGTAGCAGCAGTGTGGTTC  
TGAGAGGAGCTGGATGATGACTACGATTACGCTCCACCTACAGGGTAAGGAGGAGTTTGAGAGGCAACAGAAGA  
GCTATTGGAAGAAAGAAATATCATGAACAGAACAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTTCCAGCT  
GTTGGAACAAGAGATTCAAGGCCCGTGGAGAATGACATCTCGAAGTGAAGGCCCTCTCAGAGCCTACCCACCA  
AAACAGTGGCGTGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGCCCAATTCATTTCT  
CCTTCTCAACGCCATTTAGCGCACTTTCAGTTGTGTGAGCTCAGCCCGGCCGGAATCTCTGCGCACACAG  
CAAGTTTGTGATCTCTCAGTGCCACACAAAGTGGTTTCAATTTGGAGACAGCTGACACGCGAGGTGACTGCCAGGA  
CATTCGCAACAAGTCTATGAACTCCAGCAACACAGCTCTCGGACGAGCTCAAGACTATAGTATGGAACCAAGAT  
GGCGCCCTCCATCTTCAACAGCACCCGGCCCTGCAGGAATGGTGCACCAAGTGACAGACCTTCTAGAAATGC  
CCAGCTGTTCAGCGCTCTTGTCTGGAGATGGCAACGTTCTGAGAAAGAAAAAAGAGGAAGGGGACTGCGTTAA  
CGGTACTAAGGAAACCTGGAATACCTGTCTGGTTTTTGTAAATGTTATCTATTTTGTAGATAATTTATATATA  
AAATGAAATATTTTAAACATTTTATGGGTGAGCAACTTTCAGAAATCAGGAGGAGGAACTTTCTAGAAATGC  
TCCCCCTGTAGTGTCTTATGTATACACAGAAGTATCTGAGACATAAATCTGTACAGAAAATCTGTCCAGCTCCIT  
TTGATTTGCCCATGTATTATCTGTTTTGTTTTGTAGATGTTTGTCTGATGCAATTCATTAACAAAAAACCATGAAT  
TAGAAGACACCTTAGTAAGAGCTCTTAATGCTGCATTTTTTTGTTGTGTTTAAAAACATCCAGCTGGTTATAA  
TATTGTTCTCCACGTCTCTTGTATGATTTCTGAGCTGGCAGTGGGAATCTGGGAAGCATAGTTTATTGTGAAGTG  
TTCACCTTCCAAATCATGAGGCATAGCATGACTTATCTTGTGTTTTGAAAACCTCTTTTCAAACTGACCATCTTAA  
ACACATGATGGCCAAAGTGCCACCAAGCCCTCTTCCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT  
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTAGAGGCCAGGACCAAGTAGGATGGGTTGGTTTCAATA  
CTGAGAGACAGCTACAATAAAGGAGAGCAATTGCTTCCCTGGGGCTGTTCACCTTCTGCATTTGTGAGTGGTT  
CAGTCATGAGGTTTTCCAAAGATGTTTTAGAGTTGTAAAAACCATTTTTCAGCAAGAGTTTACAAGGCGTA  
TCAGCATATGATTGTTACCAAAATAGGGGAATGGTTGATCCGCCAGTTGCAAGTAGAGGCCCTTCTGACTCTT

**FIGURE 186B**

AATATTCACCTTGGTGCTACTACCCCATACCTGAGGAAGTGGCCAGGTCCTTGATCATGGAAGTATAGAGCTA  
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGACCTTCTTTAAAGTCAAAAAACATATGCAGA  
CTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTGCAACTCCCCCCCCGAATC

**FIGURE 187**

MKYKNLMARALYDINVPECAEELAFRKGDI LTVIEQNTGGLEGWWLCSLHGRQGI VPGNRVKLLIGPMQETASSHE  
QPASGLMQOTFGQOKLYQVNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEVEYQVPPSVQRSIGGTSGPHV  
GKKVITPVRTIGHGYVYEPSRYQKDVYDIPPSHTTQGVYDIPSSAKGPVFSVPVGEIKPQGVYDIPPTKGYYAI  
PPSACRDEAGLREKDYDFPPPMRQAGRPD LRP EGVYDIPPTCTKPKAGKDLHVKYNC DIPGAAEPVARRHQSLSPN  
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRD LVDGINRLSFSSTGS  
TRSNMSTSTSSKESSLASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT  
AVDKVELFLKEYLHFVKGAVANAACLPELILHNKMKRELQ RVEDSHQILSQTSHDLNECSWSNLNILAINKPQNK  
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGGSLHLKNGPESIMNSTEYPHGGSQGQLLHFGDHKAQAHN  
KALPPGLSKEQAPDCSSSDGSESWMDYDYVHLQGKEEFERQQKELLEKENIMKQNKMQLEHHQLSQFQLEQE  
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYDQCETHFISLLNAIDALFSCVSSAQPPRIFVAHSKFVI  
LSAHKL VFIGDTLTRQVTAQDIRNKVMNSSNLCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK  
RSLLEMATF



CGCAGGGACCGTGCTCCGCGCTCTCCGCGCATCTTCCACCCTCGCCGCGCGCAGCTCCCCGCGCTCGTGCCA  
CCGCGCGCGCTCCACCCTCAGCGCCACCGCCATCGGGAGATCGTGCACCTGCAGGCCGGCCAGTGCGGCAACC  
AGATCGGGGCCAAGTTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCACAGGCACATACCATGGGACA  
GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGCCACAGGAGAAATATGTCCCCAGAGCGGTGC  
TGGTGGACCTGGAAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCCTTCGGTCAGATCTTTCCGGCCGACAAC  
TCGTGTTTGGCCAATCCGGAGCCGGCAACAACCTGGGCAAGGGGCACTACAGGAGGGCGCAGAGCTGGTGACG  
CTGCTCTGAGCTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCAGCTGACCCACTCGCTGG  
GGGTGGCAGCGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCCAGACCGCATCATGA  
ACACCTTCAGCGTGGTGCCCTCGCCCAAAGTGTGACACACGCTGGTGGAGCCCTACAACGCCACGCTGTCTGTGC  
ACCAGCTGGTGAGAAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCAACC  
TCAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTGCGCCACCATGAGCGGGGTCAACCCTGCC  
TGCGCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCAACATGTTTCCCTTCTCGCTGCCTACT  
TCTTCATGCCCGCTTCGCACCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGCCCGAGCTCA  
CCCAGCAGATGTTGATGCCAAGAACATGATGGCGGCGTGCACCCGCGCCACGGCCGCTACCTGACCGTGGCCG  
CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGCAGAGCAAGAACAGCAGCT  
ACTTCGTGGAGTGGATCCCCAACAGTGAAGACGGCCGTGTGCGACATCCCGCCCCCGGCGCTGAAGATGGCCG  
CGACCTTCATCGGCAACAGCAGCGGCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTACAGGCCATGTTCC  
GGCGCAAGGCCCTTCTTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTACCGAGGCCGAGAGCAACA  
TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCCAGGAGGAGGCGG  
AGGAGGAGGTGGCCATAGGCTGCTCCCATCGCTTCCACCTGTCCCTCTGAGGCTTCTGACCTTTGATCGCGTAGG  
CCCCCATCTCTGAACCTTAGAGCCCCGCTTTCCCTCCAAGGCTGACTCCCGCTGACCTCAACAATACCTTTGG  
AGCTCGCTTTACCTCTGGCTACTTTCATCTCCGACCCCTGGCTCCCTTTGAGCCCTAATTTATCTTTAACCCCTT  
GAGCTCTTCCAACTTTGACATTTCCAGGAGGAGCCCCGCTTCAACCCCTTCTGACTCTGGAACCCGACCTTTAAC  
TTTGACAGACCTTCCCTTACCCCTGACTTCTGCTTCACTTTGACCTCTGCCCCCATGAATCCCATTTTACCTCT  
AGACCTATAAGTTCTGGTTTATGTTTGACCCCTCCCTCTGAGCTGCACTTCACCGCTGACCTTGCCCTCACCTTTA  
ACCCCCACCTGAGCCCCAGCTCTACCTCTGACCCCAACTTCTTTGATCTCTGAATCCCTCTGACTCCAAC  
TTCCTTTTACCTCTATGAGTCCCATTTTACTTCTACACCTGCAAGTCTCTGGTTTATATTGGACCCCTCCCTCC  
GAGCTGCAAGTTACCTTTGACCTTGCCCTACCTTTACCCCCACCCCCACAGCGTCACTCTACCTCTGACC  
CCAGCTTCTCTGATTCCACAGGCCCATGCATCTCCCTGCTCTACTCCCCCTAGCCCCCTGCCGACCTTAGC  
TTATCTGGGAGAGAAACAAGGCTGGTGCTGTGAGGAAGAGAGGTACCCCTACCCTCCCTCCCGCTTCCCTG  
CCTCACCTCAATAATAAATAATTGTTGTGATGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 189**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVLDDVVRKEAESCDLQGFQLTHSLGGGTGSGMGT  
LISKIREEPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL  
NHLVSATMSGVTTCLRFPQQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEQMDMEFTEAESNMNDLVSEYQQYQDATAEEGEFEFEFEFEFEVA

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**FIGURE 190**

GGCACGAGGGAGAACTAGTCTCGATTTTTTTTTTTTTTTTTTCTTTGTTTTGTTTTCTGTATAAAAAAGGAC  
CCCAAATATAAAGGTAGGGAAAGGGACAAGAGGGGAACATACCCCTTAGTGTAAGAAATGGGAAGGAGAAGGAGA  
AGCCTCAAAGGAGAGGTGGGAGGGGAATGTCATTAAAGGCAGCAAAGTAATCTCTGTAGAAAGATGGAGGAGGAC  
CCTCCATAGCCTCAGAGATAAAGGCAAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT  
CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGCTGCAGAGCTCGAAA  
GGCAGAGATTGCTTGTGTGGGTTAAAGTCAGCATTTCCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG  
TACCACCGACTGCATCGGCGGGGCCCTCTGGGGGGAAGGCTCCACGGGCGAGGATACATCTCAGGCCAGTC  
ATCCTCTGGAGGCAGCCCAATCAGGTCAAAGATTTTGCCCAACTGGTCGGCTTCAGAGTTTCCACAGAAGAGAGG  
CTTTGCAGCAAACATCTCTGCAAAGATACAGCCAACACTCCACATGTCACAGGTGTTGCATATGTGGACTGCAG  
AAGAACTTCGGGAGCTCGGTACCAAGTGTAAACAACCAAGGTTGAAGTGCCATCTGGTAGCTGTAGATTCTGGC  
CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCACCTTGTACCAGAATGTTCTCTGGCTTCAGATCTCGGTGAAC  
GATGCAATTGGCATGAAGGAAATCTAGGCCCTTTAGAAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA  
GCCTGGTGGGGGTGCCCTTGTCAGATATGTCTTAGGTCTGGTCTACATGCTCAAACACCAAGGTTACCTTGAT  
CTCCCGGTCAAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAAGCCTCCAGTCG  
CCTCAGTAAAGCCACCTCACGAACTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCTCATTGGGGACTCTCAC  
ACTCTTGAGGGCCACAAGTGCCCACTGTGGGGATCACGGGCTTGTACACTGTCCCATAGGCACCGACCAACAT  
TTCAGCCAC TGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCTCACGCCAGCCCGGGGTGCTGT  
GGGGGCGGCCCGTTATCGGGGCCCGGAGCCGGTTCTACGGCCCCATACCCCGAGCTCGGTCGGGAGCAG

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**FIGURE 191**

MSTGVAYVDCRRTSGARYQSVTTTGVSAIL

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FIGURE 192

AGCTGAGGTGTGAGCAGCTGCCGAAGTCAGTTCTTGTGGAGCCGGAGCTGGGCGCGGATTGCGCGAGGCCACCA  
GGCACTCAGAGGAGGTGAGAGAGCGGCGGACAGACAACAGGGGACCCCGGGCCGCGGCCAGAGCCGAGCCAAGC  
GTGCCCGCGTGTGTCCCTGCGGTGTCCGCGAGGATGCGTGTTCGCGGGTGTGTGCTGCGTTACAGAGTGTCTCTCG  
GGCAGGCGGCCATGTGAGAACCCGGCTGGGGATGTCCGTGAGAACCCATGCGGCAGCAAGGCCTGCCCGCGCTCTT  
CGGCCCAAGTGGACGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCGCTGA  
GCGATGGAACTTTCGACTTTGTACCCGAGACACCACTGGAGGGTGACTTCGCTGGGAGCGTGTGCGGGGCTTGG  
CCTGCCAAGCTCTACCTTCCCACGGGGCCCCGGCGAGGCCGGGATGAGTTGGGAGGAGGCAGCGCGCTGGCAC  
CTCACCTGCTCTGCTGCAGGGGACAGCAGAGGAAGACCATGTGGACCTGTCACTGTCTGTACCCCTTGTGCCTCG  
CTCAGGGGAGCAGGCTGAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCAT  
GACAGATTTCACCACTCCAAACGCCGGCTGATCTTCTCAAGAGGAAGCCCTAATCCGCCCACAGGAAGCCTGC  
AGTCTTGAAGCGCGAGGGCCTCAAAGGCCGCTCTACATCTTCTGCCTTAGTCTCAGTTTGTGTGCTTAATTA  
TTATTTGTGTTTTAATTTAAACACCTCCTCATGTACATACCTTGGCCGCCCCCTGCCCCCCAGCCTCTGGCATT  
GAATTTATTTAAACAAAACTAGGCGGTGAATGAGAGGTTCCTAAGAGTGTGGGCATTTTTATTTTATGAAATA  
CTATTTAAAGCCTCCTCATCCCGTGTCTCCTTTTCTCTCTCCCGAGGTTGGGTGGCGGGCTTCATGCCAGC  
TACTTCTCTCTCCCACTTTGCTCGCTGGGTGATACCTCTGGAGGGGTGTGGCTCCTTCCCATCGCTGTACAGG  
CGGTTATGAAATTCACCCCTTTCTGGACACTCAGACCTGAATTTCTTTTTCATTGAGAAGTAAACAGATGGCA  
CTTTGAAGGGGCTCACCGAGTGGGGCATCATCAAAACTTTGGAGTCCCCACCTCCTCTAAGGTTGGGCAG  
GGTGACCTGAAAGTGAGCAGACGCTAGGGCTGAGCTGGGGACCTGGTACCCTCCTGGCTCTTGATACCCCCCTCT  
GTCTTGTGAAGGCGGGGGAAGGTGGGGTCTGGAGCAGACCACCCGCTGCCCTCATGGCCCCCTGACCTGC  
ACTGGGGAGCCCGCTCTCAGTGTGAGCCTTTCCCTCTTTGGCTCCCTGTACCTTTTGAGGAGCCCCAGCTACC  
CTTCTTCTCCAGCTGGGCTCTGCAATTCCTCTGTGTGTCTTCCCTTGTCTTTCCTTTCCTTTCAGTACCTTC  
TCAGTCCAGGTGGCTCTGAGGTGCTGTCCCACCCCCACCCCAAGCTCAATGGACTGGAAGGGGAAGGGACACA  
CAAGAAGAAGGGCACCTTAGTTTACCTCAGGCAGCTCAAGCAGCAGCCGCCCTCCTCTAGCTGTGGGGGTGA  
GGGTCCCATGTGGTGCCACAGGCCCTTGAGTGGGGTTATCTGTGTGTAGGGGTATATGATGGGGGAGTAGAT  
CTTTCTAGGAGGGAGACACTGGCCCCCTCAAAATCGTCCAGCGACCTTCTCATCCACCCCATCCCTCCCCAGTTCA  
TTGCACTTTGATTAGCAGCGGAACAAGGAGTCAGACATTTTAAGATGGTGGCAGTAGAGGCTATGGACAGGGCAT  
GCCACGTGGGCTCATATGGGCTGGGAGTAGTTGTCTTTCTGGCACTAACGTTGAGCCCTGGAGGCACTGAAG  
TGCTTAGTGTACTTGGAGTATTGGGGTCTGACCCCAAACACCTTCCAGCTCCTGTAACATACCTGGGCTGGACTGT  
TTTCTCTCGGCTCCCATGTGTCTGGTTCGCTTCTCCACCTAGACTGTAACCTCTCGAGGGCAGGGACCAC  
ACCTGTACTGTTCTGTGTCTTTCACAGCTCCTCCCAATGCTGAATATACAGCAGGTGCTCAATAAATGATTCT  
TTAGTGACTTTAAAAAAAAAAAAAAAAAAAA

**FIGURE 193**

MSEPAGDVRQNPCGSKACRRLFPGPVDSEQLSRDCDALMAGCIQEARERWNFDVVTETPLEGDFAWERVRLGLPK  
LYLPTGPRRGRDELGGRRPGTSPALLQGTAEEDHVDLSLSCTLVPRSGEQAEQSPGGPGDSQGRKRRQTSMTDF  
YHSKRRLIFSRRKP

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FIGURE 194

GTGGAACCTCGATATTGGTGGTGTCCATCGTGGGCAGCGGACTAATAAAGGCCATGCGGCCAGCAGAAAACTCTGA  
ACGGGAAGGAGATCTCCGCGCAAAATAAGGGCGAGACTGAAAAATCAAGTCACTCAGTTGAAGGAGCAAGTACCTTG  
GTTTCACACCACGCCCTGGCAATATTACAGGTTGGCAACAGAGATGATTTCCAATCTTTATATAAATGTGAAGCTGA  
AGGCTGCTGAAGAGATTGGGATCAAAGCCACTCACATTAAGTTACCAAGAACAACCACAGAATCTGAGGTGATGA  
AGTACATTACATCTTTGAATGAAGACTCTACTGTACATGGGTCTTTAGTGCAGCTACCTTTAGATTTCAGAGAATT  
CCATTAACTACTGAAGAAGTGATCAATGCTATTGCACCCGAGAAGGATGTGGATGGATTGACTAGCATCAATGCTGT  
GGAGACTTGCTAGAGGTGACCTCAATGACTGTTTCATTCTTGTACGCCCAAGGAGTGTCTTGAAGCTCAAAAG  
AGACAGGGGTGCCGATTGCCGGAAGGCATGCTGTGGTGGTGGGCGCAGTAAAAATAGTTGGGGCCCCGATGCATG  
ACTTGTTCTGTGGAAACAATGCCACAGTGACCACCTGCCACTCCAAGACTGCCCATCTGGATGAGGAGGTAATAA  
AAGTGACATCTTGGTGGTGTGCAACTGGTACGCCCTGAAATGGTTAAAGGGGAGTGGATCAAACTGGGGCAATAG  
TCATCGACTGTGGAATCAATTATGTCCCAGATGATAAAAAACCAATGGGAGAAAAAGTTGTGGGTGATGTGGCAT  
ACGACGAGGCCAAAAGAGAGGGCGAGCTTCATCACTCTGTTCTTGGCGGCGTAGGGCCCATGACAGTTGCAATGC  
TCATGCAGAGCAGATAGAGAGTGCCAAAGCGTTTCTTGGAGAAATTAAGCCAGGAAAGTGGATGATTCAGTATA  
ACAACCTTAACCTCAAGACACCTGTTCCAAGTGACATTGATATACAGATCTTGTAAACCGAAGCCCATTTGGTA  
AGCTGGCTCGAGAAATTTGGTCTGCTGCTGAAGAGGTAGAATTATATGGTGAAACAAAGGCCAAAGTTCTGCTGT  
CAGCATAGAAGCCTGAAGCACCCGCGCTGATGGGAAATACGTGGTGGTGACTGGAATTAACCTCAAACACCCCTGG  
GAGAAGGGAAAAGCAACAACATAAATCGGGCTAGTGCAAGCCCTTGGTGGCCATCTCTACAGAAATGTCTTTTGGCT  
GTGTGCGACAGCCTTCTCAGGGCCCCACCTTTGGAATAAAAGGTGGCGCTGCAGGAGGGCGCTACTCCAGCTCA  
TTCCATGGAAGAGTTTAATCTCCACCTCAAGGTGACATCCATGCCATCACTGCAGCTAATAAACCTCGTTGGCTG  
CGGCCATTGATGCTCGGATATTTTCAGAACTGACCCAGACAGACAAGGCTCTCTTTAATCGTTTGGTGCCATCAG  
TAAATGGAGTGAGAAGGTTCTCTGACATCCAAATCCGAAGGTTAAAGAGACTAGGCATTGAAAAGCTGACCCCTA  
CCACACTGACAGATGAAGAGATAAACAGATTGCAAGATTGGACATGATCCAGAAACCATAACTTGGCAAAAGAG  
TGTGGATACCAATGATAGATTTCTGAGGAAGTACAGATTGGACAGGCTCCAACGGAGAAGGGTCACACACGGA  
CGGCCAGTTTGATATCTCTGTGGCCAGTGAAATTATGGCTGTCTTGGCTCTCACCATCTCTAGAAAGACATGA  
GAGAGAGACTGGGCAAAATGGTGGTGGCATCCAGTAAGAAGGAGAGCCCGTCACTGCGCGAAAGATCTGGGGGTGA  
GTGGTGCACTGACAGTGCTTATGAAGGACGCAATCAAGCCCAATCTCATGCAGACACTGGAGGGCACTCCAGTGT  
TTGTCCATGCTGGCCCGTTTGCCAACATCGCACATGGCAATTTCCATCATTTGCAGACAGGATCGCACTCAAGC  
TTGTGGCCCAAGAAGGTTTGTAGTGACGGAAGCAGGATTGGAGCAGACATTGGAATGAAAAAGTTTTTAAACA  
TCAATGCGCGTATTCGGCCTCTGCCCCACGTTGGTGGTCTTGTGGCCACTGTCAAGGCTCTCAAGATGCACG  
GGGGCGGCCCCACGCTCACTGCTGGACTGCCTCTTCCCAAGGCTTACATACAGGAGAACCTGGAGCTGGTTGAAA  
AAGGCTTCACTAATTTGAAGAAACAAATGAAAAATGCCAGAAATGTTTGAATTCAGTAGTAGTGCCCGTGAATG  
CATTCAAGACGAGATACAGAGTCTGAGCTGGACCTCATCAGCCGCTTCCAGAGAACATGGGGCTTTGATGGCG  
TGAAGTGCATCTAGGGCAGAGGGGCAAGGGTGCCCTAGCCCTGGCTCAGGCCGTCCAGAGAGCAGCACAAAG  
CACCCAGCAGCTTCAGCTCCTTTATGACCTCAAGCTCCAGTTGAGGATAAAATCAGGATCATTGCACAGAAGA  
CTATTAGACAGATGACATTGAATTAAGTTCCCGAAGCTCAACACAAGCTGAAGTCTACACGAAGCAGGCTTTG  
GGAATCTCCCCATCTGCATGGCTAAAAACACTTGTCTTTGTCTCACACCCAGAGCAAAAAGGTGTCCCTACAG  
GCTTCTATTCTGCCATTCGCGACATCCGCGCCAGCGTTGGGGCTGGTTTTCTGTACCCCTTAGTAGGAACGATGA  
GCACAATGCTGGACTCCCAACCCGCGCTGTTTTATGATTTGATTTGAGCTTGAACAGCAACAGGTGAATG  
GATTATTTCAACAGATCACATCCATCTTCAAGAAGCTACTTTGAAGCTGTGGCAGTGCTTATTACGCCCCAT  
TGGGAGTTAGGAAGTATAAGTAAGCCAGAGAGATCAGCCCTGCCCGAAGATCTGAAACTAATAGTAGGAGTT  
TCCCAAGAGTCAATTTCAAGCTTAATTTCTCATGTATAAATTAACATAAATCATGCATGCTGTCTTTACTTTA  
GTGAGCTTCCACAGAATAAAGGAACCAAGTTTGC

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**FIGURE 195**

MAPAEILNGKEISAQIRARLKNQVTQLKEQVPGFTPRLA ILQVGNRDDSNLY INVKLKAAEEIGIKATHIKLPRT  
TTESEVMKYITSLNEDSTVHGFLVQLPLDSENSINTEEVINAIAPEKDVGLT SINAGRLARGDLNDCFIPCTPK  
GCLELIKETGVPIAGRHAVVVGRSKIVGAPMHDLLWNNAITVTTCHSKTAHLDEEVNKGDI LVVATGQPEMVKGE  
WIKPGAIVIDCGINYPDDKKPNGRKVVGDVAYDEAKERASFITPVGGVGPMIVAMLMQSTVESAKRFLKFKP  
GKWMIQYNNLNLKTPVPSDIDISRCKPKPIGKLAREIGLLSEEVELYGETKAKVLLSALERLKHDPGKYVVVT  
GITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGGPTFGIKGGAAGGGYSQVIMPEEFNLHLTGDIHAIT  
AANNLVAAIDARIFHELTQTDKALFNRLVPSVNGVRRFSDIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDP  
ETITWQRVLDTNDRFLRKITIGQAPTEKGHTRTAQFDISVASEIMAVLALTTSLDMRERLGKMMVVASSKKGEV  
SAEDLGVSGALTVLMKDAIKPNLMQTLGPTPVFVHAGPFANIAHGNSSIADQIALKLVGEGFVVTEAGFGADI  
GMEKFFNIKCRYSGLCPHVVLVATVRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFSNLKKQIENARMGFI  
PVVVAVNAFKTDTSELDLISRLSREHGAFDAVKCTHWAEGGKALALAAQAVQRAAQAPSSQQLLYDLKL PVEDK  
IRI I AQKIYGADDIELLPEAQHKA EYVTKQGFGNLPTCMAKTHLSLSHNPEQKGVPTGFI LPIRDIRASVGAGFL  
YPLVGTMTMPGLPTRPCFYDIDDPETE QVNGLF



CGCGATTCTCAGGGATTGATCCGCTCTTCAGGTAAGTTATCTTCGGCCCCGTACCACTGTGCCACAGCGCGAG  
CCCGCTTCTCAGGTGCCCTATCCCGCGCAGAAACACGGCTTCACAGATGTTTATTAAAGGGCGTGGCCAGCG  
GAACATCCCGCCCCATTCTGTGACGCACGGGTGGCGCGGTGGGACCCAGAGGGTGGGGCTGGGTTTAGTAGGA  
GACCTGGGGCAAGGCCCCCTGTGGACGACCACTCTGCCAGCTTCTCTCGTTCCGTCGATTGGGAGGAGCGGTGGCG  
ACCTCGGCCTTCAGTGTTCGACGCGAGTGAAATGGCGCGCGCGGTGGGATGCTGCTGCTGGGCTTGCTGACGG  
GGTGGGTGGTGTCTGGGCCAGCGCATGGAGAAAGTGACAGCGCGCAACCTCTTGTCCATGCTGCTGATCGCCTG  
CGCCTTCACCCCTCAGCCTGGTCTACCTGATCCGTCTGGCCGCGCGGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA  
AAGTCTCCATACATTTCCTCCCAATTCCTATCTCTGGGCATGCCATAGCACTTTGGGAAAAGTCCAATTGAATT  
TCTAGAAAATGCATATGAGAAGATATGGACCTGTATTAGTTTACCATTGGTAGCAAGACATTTACTTACCTTCT  
GGGGAGTGATGCTGCTGCACTGCTTTTAAATAGTAAAAATGAAGACCTGAAATGCGAAGATGCTACAGTCCGCT  
GACAAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTCTTGGAGCAGAAGAAAATGTT  
AAAAAGTGGCCTTAAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA  
GAGTTGGGGAGAAAAGTGGAGAAAAAATGTGTTGAAGCTCTTTCTGAGCTCATAATTTTAAACAGCTAGCCATTG  
TTTGCATGGAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCAGCTGTATGCAGATTTGGATGGAGGTTT  
CAGCCATGCAGCCTGGCTCTTACAGCAGTTGGCTGCCCTTGCCCTAGTTTCAGACAGCAGGACAGAGCTCATCGGGA  
AATCAAGGATATTTCTATAAGGCAATCCAGAAACGAGACAGTCTCAAGAAAAAATTTGATGACATTTCTCCAAAC  
TTTACTAGATGCTACATACAAGGATGGGCGTCCCTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT  
CTTGGCAGGGCAGCATACATCTCTCAACTACTAGTGCTTGGATGGGCTTCTTTTGGCCAGAGACAAAAACATTCA  
AAAAAATGTTATTAGAACAGAAAACAGTCTGTGGAGAGAATCTGCCCTTTAACTTTATGACCAGCTCAAGGA  
TCTAAATTTACTTGATCGCTGTATAAAAGAAACATTAAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC  
CAGAACTCTCAGACTGTGGCAGGGTATACCATCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCA  
AAGACTTAAAGACTCATGGGTAGAACGCGCTGGACTTAAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG  
GGAAAAGTTTGCTATGTGCCATTGGAGCTGGGCGTCATCGTTGATTGGGAAAAATTTGCTATGTTCAAAAT  
TAAGACAATTTGGTCCACTATGCTTGCTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA  
TACAACATGATTACACCCCTCGAGAACCAGTTATCCGTTACAAACGAAGATCAAAAATGAAAAAGGTGCAAGG  
AACGAATATATGTGATTACTCAGTGAAGCCACAAGGCATTTCGAAGAGAATGAAGTGACAAAAACACTCTTTGTA  
GTTTACTGTTTTTTTAAAGTGTGTAATTTCAAAGCCAGTTTATGATTTAGGATTTTGTAACTGAATGGTTCTAT  
CAAAATAATAGCATTTGACACATTTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCTTGGTG  
AAACAATTTGTTAGGGGGGATCTAGGTAATTGGCAGATTCATAATAATATAATTTCCAGATAGTAATTTTAAAGAG  
TACTCATCGCTCTTGCCAAATAAGTTCAGGGTATTCAAATCTTGGACTAGTCCCTGCAAGGTAATAAGAAATAAAAA  
TCCCACTGAGATACTTGGAAACCACAGTTTATTATTATTTATCTGGGCAATTAATTGTGTGTGTGAGGATGGAAGG  
GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATGTTTGGTATGATGATACTCAGAAATG  
GAGATATTATAGGAAAAAGAAATTCCTTTGGAAATTTAACTAAATCACTGCATATAGGAATTAAGAGATCAAGG  
ACCATATTTGATAAGAGTTCCTAAAAATAATGTAATTTAATAGCTAAAGACTGCTCATGATCTTGATCTAAT  
ACTAAATAAATACATATTTATTACCTGATAAATATGTATCTAGTTCTCAAGGTCACATTTATGTGGGAAGTCC  
AAATCAAGTCTCTTAGGGGATAATTTTGTTTGGGCTCAGTTGTTCCCTGCTTCTTTTTTTTTTTTTTTTTTTT  
TTGAGATGGAGTCTCGCTCTGTGTGCCAGGCTGGAGTGCAGTGGTGGCATCTCAGCTCACTGCATCTCTCGCTC  
CGGGTTCAAGCAATTTCTGCCTCAGGCTCCCAAGTATGAGGATTACAGGCACCTGCCAGCAGCTTGGCTAA  
TTTTTTGTATTTTAGTAGAGACGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACCTCTGAGCCTCGTGAG  
TCCACCCGCTTGGCCTCCCAAAAGTGTGGGATTACAGGCATGAGCCACCCAGCTGGCCTTCCCTGCTTCCCT  
CTAGAATCCAATTAGGATGTTTGTACTACTCATATTGATTAAACAGTTAAACAACTTTTTTCTTTTAAAAAT  
GTGAGATCAGTGAACCTGTGTTTTAAGATAATCTGAACAAAGGTCCTTGGGAGTAATAAAATTTGTCACATTCTG  
TAAAGACATTCTGTTTAGGAACAACCTTATCTCAAATTTGAACCTGGGGCTTAACATATAGATGGCTGAAAA  
AATACCACATCGTCTGTTTTCCTAGGCTGATGCCAAAAATTTTGCCTTATGTATATTACAGTCTCTTTTAAAAAC  
ACTGGAAGACTCATGTTAAACTCTAATTTGTGAAGGCAGAACTCTGCTCAATTTTTCAGATTAAAAATCTCTTTGA  
AAAAAT

**FIGURE 197**

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACFTLSLVYLIRLAAGHLVQLPAGVKSPPIYFSPPI  
FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKFTTYLLGSDAAALLFN SKNEDLNAEDVYSRLTPVFGKGVA  
YDVPNPVFLEQKKMLKSGLNIAHFQHVSIIEKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIRS QL  
NEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQKRRQSQEKIDDIQLTLLDATYK DGR  
PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRCI KE  
TLRLRPPIMIMMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDSWVERLDFNPDRYLQDNPASGEKFAYVVF GA  
GRHRCIGENFAYVQIKTIWSTMLRLRYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

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**FIGURE 198**

TCCGGAAGCCATAGGGCGCCTCCACGCCGCTCCCCGCTCCAGTTTAGAACCTAATTCCCAATTCCCGGACCGG  
GCCACGCCCTGGGCTCTTACTGTCCGCTTTTGTGGGACCTGTTCCACAAATGGGCGTCTTTCGCCTTGGGCGGT  
GGGGTTGGGCGGGAAGCTGCGGACGCCTGGGAAGGGGCGCTGCAGCTCTTGAGCCGCCTCTGCGGGGACCACT  
TGCAGGCCATCCAGCCAAGAAGGCCCGGCTGGGCAGGAGGCTGGGACGCCGCCCTCCTCGCCGTGAGTG  
CCGAGCAGTTGGACCGGATCCAGAGGAACAAGGCCGCGGCCCTGCTCAGACTCGCGGCCGCAACGTGCCCGTGG  
GCTTTGGAGAGAGCTGGAAGAAGCACTCAGCGGGGAGTTCCGGAAACCGTATTTATCAAGCTAATGGGATTTG  
TTGCTCATCTGGCCATGGAGATTTATCTGGGTGGGCCAAGCAAGGTGTTCTCCTTCTCAACGCTGTCTCACGG  
TTCGTGCCCATCAAGCCAACCTCATAAAGGAGCGAGGCTGGGAGCAGTTCTACTGATGCAGTTGTGTCTGGCTAA  
ATCAGAACTCGAATGGCCTTGTCTTCTGCTCTGGGGCTCTTATGCTCAGAAGAAGGGCAGTGCCATTGATAGGA  
AGCGGCCACCATGTACTACAGACGGCTCATCCCTCCCTTTTGTGAGTATAGAGGGTTCTTGGATGTAGACACT  
TTTCAAAGACCAATGAGCTGCTGCAGAAGCTTGGCAAGAAGGCCATTGACTGGAAGGAGCTGTGATCATCAGCTG  
AGGGGTGGCCTTTGAGAAGCTGCTGTTAACGTATTTGCCAGTTACGAAGTTCCACTGAAAATTTTCTATTAATT  
CTTAAGTACTCTGCATAAGGGGGAAGCTTCCAGAAAGCAGCCATGAACCAAGCTGTCCAGGAATGGCAGCTGT  
ATCCAACCAACAACAAGGGTACCCCTTGACCAAATGTCTTCTCTGCAACATGGCTTCGGCCTAAAATATG  
CAGAAGACAGATGAGGTCAAATACTCAGTTGGCTCTCTTTATCTCCCTTGGCTTTATGGTGAAACAGGGGAGATG  
TGCACCTTTACGGCACAGCCCTAGTTTGGCGCCTGCTGCTCCTTGGTTTGCCTGGTTAGACTTTTCACTGACAGA  
TGTGGGGTGTTTTGCTTTAGAAAGGTCCTTGTCTCAGCCTTGACGGGACAGGATGCCAGTCTCTGCCAGTTC  
CACTGCCCTTGTATCTTTGAAGGAGTCTCAGGCCCTCGCAGCATAAGGATGTTTTGCAACTTCCAGAATCT  
GGCCAGAAATAGGGCTCAATTTCTGATTGTAGTAGAGGTTAAGATTGCTGTGAGCTTTATCAGATAAGAGAC  
CGAGAGAAGTAAGCTGGGTCTTGTATTCTTGGGTGTGGTGGAATAAGCAGTGGAATTTGAACAAGGAAGAGG  
AGAAAAGGGAATTTTGTCTTTATGGGGTGGGGTGATTTTCTCCTAGGGTTATGTCAGTTGGGGTTTTAAGGCA  
GCACAGACTGCCAAGTACTGTTTTTTAAACCGACTGAAATCACTTTGGGATATTTTTCTGCAACACTGGA  
GTTTTAGTTTTTTAAGAAGTACTCATGCAGATATATATATATATATTTTTCCAGTCCTTTTTTAAAGAGACGGT  
CTTTATTGGGTCTGCACCTCCATCCTTGATCTTGTAGCAATGCTGTTTTTGTGTTAGTCGGGTAGAGTTGGC  
TCTACGCGAGGTTTGTATAAAAGTTTGTAAAAAGTTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 199**

MIGQKTLYSFFSPSPARKRHAPSPPEPAVQGTGVAGVPEESGDAAAIPAKKAPAGQEEPGTPPSSPLSAEQLDRIQ  
RNKAAALLRLAARNVPVGFGESWKKHLSGEFGKPYFIKLMGFVAERKHYYTVYPPPHQVFTWTQMCDIKDVKVVI  
LGQDPYHGPNAHGLCFVQRPVPPPPSLENIYKELSTDIEDFVHPGHGDLGWAQGVLLNNAVLTVRAHQANS  
HKERGWEQFTDAVVSWLNQNSNGLVPELLWGSYAQKKGSAIDRKRHHVLQTAHPSPLSVYRGFFGCRHFSKTNELL  
QKSGKKPIDWKEL

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**FIGURE 200**

ACCGCCGACGCAGACCCCTCTCTGCAGCCAGCCGCCGCCGCCACCCACCATGGCCACAGTTCAGCAGCTGGAAGGA  
AGATGGCGCCTGGTGGACAGCAAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA  
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT  
TTGAAAAACAACACAGITTTTCTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAACTCAG  
ACTGTCTGCAACTTTACAGATGGTGCAATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACATAACAAGA  
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA  
GAATAAAAAATCCATCATCACTTTGGACAGGAGTTAATTAAAGAGAATGACCAAGCTCAGTTCAATGAGCAAACTC  
CCATACTGTTTTCTTTCTTTTTTTTTCATTACTGIGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT  
TTCAAAGTGIGTTGGATTAATTAGGATCATCCCTTTGGTTAATAAATAAATGTTTTGTGCT

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**FIGURE 201**

MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSCITLGEKFEE  
TTADGRKTQTVCNFTD GALVQHQEWDGKESTITRKLKDGLVVECMNNVTCTRIYEKVE

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**FIGURE 20**

GGGACTACATTTCACAGGGGGCAGAGGCAGGGGCGGGAGGGGCGGGCCCCGGCGCTGCTCCCGCCCTCCCCGG  
TGCTCGCGGGGAGAGGTAAACAAACACGCGGGGCTGCCGCGGCACGGCGGGCGGGCTGCGCGGCTGGGGC  
GGCAGGGGGCGGGAGAGCGCGCCGAGCGCGGCCGAGCTGGCCCGCCCGCCGCTGCGACATGTTCCGGAACGGC  
GCCCGGCCGTAGCCGCCCTGCGCGGCCCTCTGTGCGGCCGAGAAAGGAGTGGCGAGAGGGCGCCGGTCCGCCACCCGC  
GGTGCCCA**ATG**GAGCGGGTGAAGATGATCAACGTGCAGCGTCTGCTGGAGGCTGCCGAGTTTTTGGAGCGCCGGGA  
GCGAGAGTGTGAACATGGCTACGCCCTCTTCATTCCCGTCCATGCCGAGCCCCGACTGACGACATTCAAAAGCCCC  
ACGGAGGTTGAGCCGGGCACAGAAACACAGCAGCGGGAGCAGCAACACCAGCACTGCCAACAGATCTACACACAA  
TGAGCTGGAAAAGAATCGACGAGCTCATCTGCGCCTTTGTTTGAACGCTTAAAGTTCTGATTCCCATAGGACC  
AGACTGCACCCGGGCACACAACTTGGTTTGCTCAACAAAGCCAAAGCACACATCAAGAACTTGAAGAAGCTGA  
AAGAAAAAGCCAGCACCGAGCTCGAGAATTGGAAACGAGAACAGAGATTTTTAAAGTGGCGACTGGAACAGCTGCA  
GGGTCTCTCAGGAGATGGAACGAATACGAATGGACAGCATTGGATCAACTATTTCTTCAGATCGTTCTGATTGAGA  
GCGAGAGGAGATTGAAGTGGATTGTGAAAGCACAGAGTTCTCCCATGGAGAAGTGGACAATATAAGTACCACCAG  
CATCAGTGACATTGATGACCACAGCAGCCTGCCGAGTATTGGGAGTGACGAGGGTTACTCCAGTGGCAGTGTCAA  
ACTTTCATTCACTTCA**TAGA**ACCAGCATGACATAACAGTGCAGGGCAAAATATTCACTGGGCCAATTCAATACA  
AACAATCTCTTAAATTTGGGTTTCATGATGCAGTCTCCTCTTTAAAAACAAAACAAAACAAAACATACTTGA  
ACAAAAGGGTCAGAGGACCTGTATTTTAAGCAAAATACTTAGCAAAAAGTGGGCGAGAGCCTCCCAAGGAGAACAAA  
TATTCAAGATATTTCATATTGGAATAATCACAATTTTTAATGGCAGCAGAAAACTTGTGTGAAATTTTCTTGATT  
GAGTTGATTGAGAAGAGGACATTGGAGATGCCATCCTCTTTCTCTTTCTAGTTTGCTCATACTACATTGAGTAG  
ACACATTTAAGGATGGGTTATGAACCCCTTCTGAGCTTTATGGTCTTAAAGCAAAATAAAAACTATTCTGAATG  
AAAAGACAAGAAAATCAGGTATTAATCTTGGATAGCTAATAATGAGCTATTAAACTCAGCCTGGGACAGTTTAT  
CATGAAGCCTGTGGATGATCAATCCTTTATTATTATTTTTTTTTTTTGA AAAAAGCTCATTTCACTGCTCGCAAA  
AGGAGAGACTCCCATGAAGCCTTTTGAAGGGATCATCATGCAGCTCAACTTTCTGTTGGATTCCATGCTAAGCA  
AGCTAACCTTATCCTGCATTGTTAGCACTAGGCACCCAGCTGCCACCTCTCCATCCTGCTGCCCTTAGGCCACAT  
GGGAGCAGTCCATGCATGACAGCCTTATCCTACAAGGCCTATGAGTATGGATTGGGGGGCCAAAAGGAAAAAG  
CTCCATGTGCCCTTTTGCTGCGTGGGTGAGAAGAGTTGTGCACGCAGATTAGCAGGCCAAGGTCTGAGCCACAG  
CAGCATTTTTATTTCAGATTTTGATAACTGTTTATATGTGTTGAAACCAAAATGACATCTTTTTAAAGCTTATC  
CATAAAAAAAAATAGATGTCTTTTATAGTGGA AAAACACATGGGGA AAAAATCATATTTTGATGCAGCATTT  
GATAATGATAAAACCTCACACCTCACTCTTTATAGTGCACAAAATGAATGAGGTCTGGCTAGGTAGAAAAAG  
GGTCAATGCTATTTTTGTTTTTGAATCATTACCTTTTACCAGCTTTTAACTCTGATATCTATAGTAGACACA  
CTATCATAGTTAAACATAGTTAAGTTCAAGCACTTGCTCATTTTAAATGTAAGATTGCTTCCATTTTTCTACAGG  
CAGTCTCTCTCTCTCAAGTCCCACTGTGCAAGTGCTATTGTTACTCTTACGAATATTTTCAGTAATGTIAT  
TTCTTCTAAGTGAATTTCTAGCTGCACCTTTGATGTCATGTGTTCCCTTTGTCTTTCAAACCTCCAAGGTTCCCC  
TGTTGGCCCTCTCCCTTACCCTGGGAAGGCCCTCTGGAGACCTTACCCTGGCTGTTTGGACTTTGTATACTTTAA  
ATAATTTAACTACCCTTAATTACTTAAAAA AAAAAAAGCCTTATGATTTCATAACTTATTGCTGATTTTAA  
GGATTGTTAATTCAGTCTGAGTTTTTATTTATGTTTAGATAGGCTGGGCAAGAAAAAGAAAATAAGACA  
ACCATTTTAGCAGTGCA

**FIGURE 203**

MERVKMINVQRLLAAEFLERRERECEHGYASSFSPSPRLQHSKPPRRLSRAQKHSSGSSNTSTANRSTHNEL  
EKNRRRAHLRLCLERLKVLIPLGPDCTRHTTLGLLNKAHAHKKLEEAERKSHQLENLEREQRFLEQWLEQLQGP  
QEMERIRMDSIGSTISSDRSDSEREEIEVDVESTEFSHGEVDNISTTISDIDDHSSLPSIGSDEGYSSAVKLS  
FTS



CGGTGCTGGAGAAGTTTGGCGTGC GGTTTCGTGAGCGCAGGGTGC GGCGCCCGCGGCCGCTGC GCGGCCGCTGCC  
**ATGG**GCTTTCCG CAGGAGGACGAAAAGTTACCGCTCTTCAGCCAGGAGTTCGT CATCCACAACCATGCGGACATC  
GGCTTCGCTGGTGCTCTGCGTCTCATCGGGCTTATGTTTCGAGGTACAGCCAAAGCTGCCTTTCTATTATT  
TTACCTCAGTATAACATTAGCGTGCCTACAGCAGACAGTGAGACCGTGCACTACCATTATGGCCCTAAGGACCTG  
GTACAACTCTTGCTACATCTTTCATCACCATCATCTTGATGCTGTGGTTCGAGGATGACATTTAGATAAAATC  
AGCAAAACGGCTTCATCTCTCCAAAGTCAACACAGCAAGTTCAATGAATCTGGACAGCGCTGGTCTCTTTCATTT  
ACCTCGGTGATTTGGTGCTCTTACGTGTGTGAGCGGAAGGATCTTAACAAACCAAGAACCTCTGGGAAGAC  
TACCCGATGTGCACCTCTCCCTTCCAGGTGAAGTTTTTCTACCTATGCCAGCTGGCCTACTGGCTGCACGCACTT  
CCTGAGCTATACTTCCGAAAGGTACGGAAGGAGGAAATCCCCGCCAGCTCCAGTATATTTGCCTGTACCTGGTG  
CATATAGCTGGAGCATACCTCTTAAACCTGAGCGCGCTGGGCTGATCTTGTGCTGCTGCAGTACTCAACTGAG  
TTCTCTTCCACACGGCTAGACTCTTCTACTTTGCAGATGAAACAACGAGAAACTGTTCAAGTCCCTGGGCTGCT  
GTTTTTGGGGTTACCCGCTCTTTCATCTCTCACCTTGGCTGCTGGCCATTGGCTTTGGACTGGCTCGCATGGAA  
AACCAGGCATTTGATCCCGAGAAAGGGAACCTTCAACACTTTGTTTTGAGGCTCTGCCTGCTGCTGCTGGTGTGT  
GCCGCCAGGCCCTGGCTCATGTGGCGCTTCTACCACTCCAGCTGCGGCCTGCGGGAATCTGGAATGAGCAG  
AGTGCAAAAGCGGAGAGTCCCGCCACACCCAGACTACCGCCAGGCTCATCAAGAGGGAATCTGGTTACCATGAA  
AATGGAGTGGTGAGGACAGAGAACGAACTCCCCACGGACTAAGAAACCTCAAGTCTCCCTTAAAGGCCAAAGTGCT  
AAGAAACAGGAATCTCTTGTGTGGGGGCCGAGCAGGGGGCAAGGAGCCAGGCCCTCTCTGCTCTCTCTCTCTCT  
CGCTGTGATGCTCCGCTCAACACAGCCGAAACCTGTCTTGCAATGGGGGAGGGGCGTTTCGCTTCTCTCTCTC  
TTGGCTTCTCTTTATTTCTCCACAAACCATCTCAATAAAGCCAAAAATCTTTCTCTTTCTCCCCCTCAGGCCAC  
CTCTCTGCTCTACTCCTGCTGCTGCTGGCTTTTCTGGAACGCCAGGCCCATGGCTGGCACTTTCTGCTGCTG  
CTGTTTCTCTGCTTATGGCTGCTGCTTTTCTCTTTTACTTCTCTATTTCTGCAATTTCTGCAATTTTCTGCTG  
GATTTTACAATGGGAGGGGAGCTAAGATTGCGATCTCTGCTCTTGGTCCCCAGGGCTGCGGCTCAGAAGCCT  
GGGGCTGGTAGGCCCTTGGTGCTCTCATGTGGATGGGCAAGAAGAGAGCGGCCATCTCGGATCATAATCTCTCT  
GTGCTGATTAACTGACGAGATATGATTCCAGTTCTGCATCTGCACTCTTGAGGCACAGCAGCCAGCTGCTGT  
TGTAATGCCAAGGCATTTGGCTTTGGGACGTGACAACCTCAATCCAGAAGGATGGTGTGAACCTCGGTGGGTCCC  
GTGACTCGAGCTCTTACAGTGCTGGCGCGGATTGGAAGCCAGCCCTGCTGTGCTGCTGTGTTGGGAGGACATGTC  
TTCCCACTGCTTAGAGCGAGAGCAGAGCAAACTGCGCAGCAGGCACCTCCAGAAAGGTAATGGTGGCAGAACCCA  
CAGTGGAGTCGACCTAGGCCCTTTCTCCAGCAGTCCAGTGCGCATTGCTTTTTCAGCCATTCAAGAAGATTCAAA  
ACCAAACCAACAGCAGTTCATATACCTGCCAGATAGGCTGGTCTCTCACTCCAGAGCCAGCCAGCCCGCTCA  
GGGGCAAACCTTACTACTTGACTTCACTCTAGCTGCAGAAACCTAAGTCTTAAGGGCTTACGCCCTTACTGCTG  
GTCCCTTGGTGTTCAGGGAGGGTCACTTGGACCGCTGTTCACTTGGCGGCCCTTGTGTAGTGTCTTTTGGAAATG  
TCGTTTTTGTAGCAACATACAGCATTTAGACTGCATGAACCACTAGCTACTGAGACTCACTCTCTGGGTAGA  
TGATAGGCGCCTTTCTGGCCCTTCCCTCACAGATTCTTTCCCTCTCCCTCCACCTGAAGAGAAAGGCCCTCAAGT  
CTTTTGTGGTCTGTGAGGACTTTTAGAAGGGGCGTTACGTTTAAAAAGCCGGTCCTAATTACGGCCGAGCGC  
AGTAGCTTACCGCTGTTATCCAGCACTTTGGGAGTTCGAGTGGGCAAGTCACTGAGGTAGGATTTCAAGC  
CAGCCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAAATTAGGTGTAGTGGCAGGCACCTGTAA  
TCCAGCTACTCGGAGGCTGAGGCGAGGAGAATCGTTGAACCTAGAAGGTGGAGGTTCGAGTGAGCGGAGATTG  
TACCATTGGCACTCCAGCTGAGCACTTACATCATAGATAAATTTAGCTTCCGATTAAGGAGGATTTGTTCTTAA  
CGCCATTGGAGGCCCTTCATCCCTCTCTACGATAAGGTTGCAGAAATGGGAAGAGCTACCCGCTGGTGTCTTTGAT  
TACCTTTAGGAAGTGAGACAGTGTTTTTGAAAAATATGATTTTCTCCATTCTCTCTCTCTCTCTCTGACACTTC  
TCTGGGCTGCACAGCAGAAACGTTTGGTAAAGGGCAGTTTGGTTTCAACACAGCAGACCTGATATGGGATCCCTT  
AGCCACTTTAGTCAAAAGCCCTTGACAGAGTCTATAATTGAGTTACGCGCCCACTTGCCATTAAGTCACTGCAA  
TCGCATGTTTCAGCCAGCGCTCTTAAGCCACCTTCTCTCCCAATTAGAGAACCCCTCTAGGTGCTCCCA  
GGCTGTGTCATTGGCAGGCTTTCATATGAGGAGGCTCTCTCAGGTGAGTCCAGGTTAAACTGTTGAGTTGTGG  
CTTCAACAGATATGATGGCATGCTGGGATGTGCCAGGTGCCTGCGTGTGTCAGTTGCTGGAGAGGTAGTGTGA

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**FIGURE 204B**

GCAGAGCAGCTGAAATCTTGCCATCAAGCAACCTCTATTCTCATGCCTGTAGGTTTCCATTGCTCTGTCCAGGA  
 CACTTGGCTGCCAGAGACGCCACAACCTTCATGTCCTGTCTCTTGCAAGCTCCCCGTGCTGCCAGTACTTTCATGC  
 CTTGGATGTGGTCCACCAGCCAGTGGCTGGGGTCAGCTTAGGCTCTGCTTCCAGTGGAACGGGTGTGCTAAGG  
 GTTTATTTTATGTAAAAAACAACCAACCAACCTTGAGACCATGAGTGGGGCTGGCATCTTGTCCGACC  
 CTGGGCTTCAGGGATGTTTGGGGGGGTGGTTAGAGGGTAGTTGTAGGGTAGTTGTACACCCCTCCCCCTGCC  
 ACCCTCCCTGGCAGCTTTATTTACAGCAGAGCCAAAGTCTGTGGCAGGTGACACAGACTGTGTGCCAGAGCTG  
 AAATAATTCCACTTCATCCTATGAGCGTGTGGGCTAGCTTGTCTAATTTTGCCACTTTGGCTGTTTTCTCA  
 GTTTTATGCATTCTCTCTGCCCAAGTGCCCAAGCCATTTGTGAAGGCTTGCCAGACACCTTCAAGCTTGAGA  
 GCTCAGCACCATTGCACCAAGAGCAGGAGAAAAGACGTAACCTACCCAGCAACTGTGGCTCTCGACAGCCCTG  
 GCTAACTAACTTACATTTGTGGGGAAGCCAACAGACACAGCAGGAGGAGGGAGGTGGCGCTGGTGACCAAGG  
 ATCTGTGCTACCCGCTCCCTCCTTGGAGGTGCAGTGATGATGGGAGTTATTTTTACCATCCGGGCGCTGATAGC  
 TGCATTAATAAAATTCATGTGTTCTTTTGAAGGTAGGGGATGGTTCTGGGTGAGAGGGGAGCAGGCTGAGC  
 CGCGGGGGATCTGCTGTCTCCCTTTTGAGTCAGTTCTAATCCCATGTGTGTCTGGGCCACCAAGCCGAAATGG  
 TTGCTGAGAACTTGTCTGTTTCATGTCCTCAAGGCATAACTTCCCAACTTTAAGAAACCCCAATAGACACCTCTG  
 CCTTGCCACGTTTCACAGATCCTTCTCTTGACCGGAAACCTGGGACCCTAAGAACCCTGAAGCTTGGGGTGGG  
 TGTGTCTCTTGGGGTCTCTTTTGGGACCTCCTTTGTCACTACCCCTCTTTTTCTAAGCAGCTAATAAGAGGT  
 TGGGTGAAGAGTGCATCTCTCCAGGATTCACAAACAAATTTCTATCTTCATGGATGCTTTAATTTGAAGT  
 GGGTGGCCAGCCCTTGTGCTAGAAAAGGCCCTTGTCTGGGTTTCTTTGTATGCTTCAGCCTTCCTAGTTGG  
 TTTTCTAGGCTGTGTGAGAGGTGGGAAGTCTGCACATAACTATCTTTTGGTCTAAGGGCTTACGGGCACAA  
 GTGCACAAACTTCAATCTTGTATGTTCTAAGCTCTCTCTAACAGAGGGAGTGTGAAAGCTTTTGTAGTCAAG  
 ACAATGGAGTGCTCTCTCCCTCAGCTTGCCTTCCGAGCTTATGGTTCTTTCTCAGGAGAGGATTTTCAGGA  
 TTATTGGAGGATTAGGTCATTTGCAGATGACTGGAACCACTAATAGGATCTCTCTCCAGCTCAAGGTTGTCCCA  
 GTGAGGAAGACTTTACCAACTTCTCACTCTACCCCACTACTCATATAGTGTGTAGCTCCACCTTGCAAGGCTGA  
 AGACAGTTCTCCCAAGTGAAGCTGCCTCATTCTTTATGGAGTTCCCTGGAGTGGCAGAGCTATAAAGACGAG  
 CATTGGGATTTGCAGTCTCCATGTAGCCTTTCGTGCTTGGCAACCCCTGTAGACTTTTTGTCCCAAGCAGATTGC  
 GTGCGTGCCTGTGTGTGAGAATAAGTGCCTTACTTTGTCTGTGGTTTCAACTTGTACTCCGTGGCCAGCCCC  
 CCAGTTGCCAGGGCTCGACGGCAGCCAAGGACACCATACCTCAGTATAGTTATATATAAAATGGACAGGATTTG  
 GACAGTTTACCCCACTTTGTTTCTAACCCCGCTGCCAGGATTAGGGTCTGTGGTGTGTTCTGTTTTGTTTTGG  
 TTTCTCCCTTGTGTAGTTCTCTTTCGGCCAGCTGGGTGGCTGTGGAAGTCTGTGAGGTGGCCCAACCAACAAG  
 ATACCTATTAAGAGAAGCCAGAGCTTCCAGCCCCACTTCGAAAACCTCTCCTCTGGCCCAATAGCAAACTCC  
 TTCTCGTTATTTTCCCAACCCCAAGATTTTTTTTAAAGGCCCACTTGCCATAACCTCTTTTGGTCTATTTTTCG  
 TTCCCATTCAGCCCAAGTTTATATGATAAAGGTGTTTACTTTTACTTCCAGCTCCAAGTGCTAACACATAAA  
 CACATACATGCTGACTGTTGCGAGACTGTTGAGCTCTTAATCAGTGCTACTGTTTTTGTGCTGCGAGCAACCC  
 CTCCTCCCTACCCCTTGGCCCGCCAGCTTTTCTCACTCTTCGGGGTGTGCAATAACTCTCTCCAGCCAGTGGTCT  
 TTTCCACAGCCTTTCTGTCCCTTAAACACCTGCAACTGGGGGAGAAATGGGACCATTGGGAGGGGGAGTATCA  
 TCCTTTACACAAGAAATAGGCCATTTCTTTTGTGTGCTTCTGTGATCCTGGGTGGGTTTCTGTGGCACTCTT  
 TTAGAACATGTAGCATCATCTTAGAGGTCTATTTTAAAAAATGTGTTGAAGAGGAAAAAACCATCTTCACGATG  
 GGGCTTAAGTCATGTGCTCAGGAATAAGATTGGCTGGTGGTGGCCATGACATCACCTGCACTCTGCTTAAAGCACTC  
 TAGAGCTACTTGTTCACGTGGAGAGGAAGGATATTTTGCAGCAACAGCCGAGGTGGAGAGCCCTGTTACCT  
 GATAGGCTTACTGCTGTGACAGTAAATATAATACCGCTGTTTCTTGGGTACAGATTGAGTGTTCATGTGATGAG  
 ACTGTAAACCTCATTTTTCGGTCTCTGTTTAAAAAACAATCTGAAGGATGAACCTAAGGCTGCTGGTGGCCCTGA  
 GCAACTGATAATGCAAAATGTGGACAAAGTGTCTGTTTCTACTCTAGCCTGTTCATATGACCAAAATTTCAACAA  
 GGAACCTCAAGGAAAAATTTGTACCTGCGGTATTTATGCTTTTCATGTAAAAAAGGGTTGGGGGGAGGGGTGCTTTT  
 TGCTTTTGGTGAACTTTTTCTTAAATCATTTTTCCACTGTTCTGTCTGGTTTTTAAAAACAAATACAGCTTTGT  
 ATGGATTTTTTAAATGTACATTTTGAACAAATGATCAATATTTTCTGAAATACAAATAAAGGCAGAAAAAT

**FIGURE 205**

MAFRRTKSYPLFSQEFVIHNDIGFCLVLCVLIGLMFEVTAKTAFLEILPQYNISVPTADSETVHYHYGPKDL  
VTILFYIFITIIHVVQEYILDKISKRLHLSKVKHSKFNESGQLVVFHFTSVIWC FYVVVTEGYLTNPRSLWED  
YPHVHLPFQVKFFYLCQLAYWLHALPELYFQKVRKEEIPROLQYICLYLVHIAGAYLLNLSRLGLILLLLQYSTE  
FLFHTARLFYFADENNEKLSAWAAVFGVTRLFILTLAVLAIGFGLARMENQAFDPEKGNFNTLFCRLCVLLLV  
AAQAWLMWRFIHSQLRHWREYWNEQSAKRRVPATPRLPARLIKRESGYHENGVVKAENGTSPTKKLKSP

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**FIGURE 206**

AAAAACGCCGGGCTCCAGCGGGAGAACGATAATGC AAAAGTGCTATGTTCTTGGCTGTTCAACACGAGCTGCAGAC  
CCATGGACAAGAGCGCAGGCAGTGGCCACAAGAGCGAGGAGAAGCGAGAAAAGATGAAACGGACCCCTTTTAAAG  
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCCTGGGAAGCCCAAAACCGGCAAAAAAGCA  
AACAGCAAGCTTTCATCAAGCCTTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTTGACGAGCTGCTAGCCA  
GCAAATATGGTCTTGCTGCATTTCAGGGCTTTTTTAAAGTCGGAATTCGTGAAGAAAATATTGAATTCGGCTGG  
CCTGTGAAGACTTCAAAAAACCAATCACCCCAAAAGCTGTCTCAAAGCAAGGAAAATATATACTGACTTCA  
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAACTCTGATTGCCAGAATATACAAGAAG  
CTACAAGTGGCTGCTTTACAAC TGCCAGAAAAGGGTATACAGCTTGATGGAGAACAAC TTTATCCTCGTTTCT  
TGGAGTCAGAATTCACCAGGACTTGTGTAAAAAGCCACAAATCACACAGAGCCTCATGTACATGAAATGTAA  
AAGGGAGCCCGAGAAATGGAGGACATTTCATTCTTTTCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC  
CTTGAATTCAGCCTGGGTGTT CAGGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC  
CAGTAAGTACTAGTAGAAGCTGGTATCAGAACAGCTTCCTCTACTGTGTACAGAACGCAAGAAGGGGAATAGGTG  
GTCTGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA  
AAAGCATTTAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTTCCCTAAATCGATC  
CATGTTACCCATAGTAGTTTTAGTTTAGGATT CAGTAACAGTGAAGTGT TACTATGTGCAAGGGTATTGAAGT  
TCTTATGACCACAGATCATCAGTACTGTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCAATTGTTA  
AAAATGATGTGTGAATAGAAATGAGTGTATGGTGTGAAAAC TGCAAGTGTCCGTTATGAGTGCCAAAAATCTGT  
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTTAATAAATTTATTTTGATAAATAATATTG

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**FIGURE 207**

MQSAMFLAVQHDCRPMDKSAGSGHKSEKREKMKRTLKLDWKTRLSYFLQNSSTPGKPKTGKKSQQAFIKPSPE  
EAQLWSEAFDELLASKYGLAAFRFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTDFIEKEAPKEINI  
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

## FIGURE 208

CTGCTCGCGGCCGCCACCGCCGGGCCCCGGCCGTCCCTGGCTCCCCCTCTGCTCGAGAAGGGCAGGGCTTCTCA  
GAGGCTTGGCGGGAAAAAGAACGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTTCGGGGTTTTATCTAA  
CTCGCTGTAGTAATTCCAGCGAGAGGCGAGAGGGAGCGAGCGGGCGGCCGGCTAGGGTGGAGAGCGGGCGAGCA  
GAGCTGCGCTGCGGGCGCTCTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCCTTGGCCACGCCCTCCCG  
CTTGATCCCCAGGCCAGCGGTCCGCAACCCTTGCCGATCCACGAAACTTTGCCCATAGCAGCGGGCGGGCACT  
TTGCACTGGAACTTACAACACCCGAGCAAGGACGCGACTCTCCGACGCGGGGAGGCTATTCTGCCCAATTGGGG  
ACACTTCCCGCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCACTGCTTAGACGCTGGATTTTTT  
CGGGTAGTGGAAAACCAGCAGCCTCCCGCGACGATGCCCCCTCAACGTTAGCTTACCAACAGGAACATGACCTC  
GACTACGACTCGGTGACGCCGTATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGAGCGAG  
CTGCAGCCCCCGCGCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCACCCCGCCCTGTCCCCTAGC  
CGCGCTCCGGGCTCTGCTCGCCCTCTTACGTTGCGGTACACCCCTTCTCCCTTCGGGGAGACAACGACGGCGGT  
GGCGGGAGCTTCTCCACGGCCGACAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACAGAGT  
TTCATCTGCAGCCCCGACGACGAGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG  
GCCGCCGCCAAGCTCTGCTTCAGAGAAGCTGGCTCCTACCAGGCTGCGCGCAAGACAGCGGACGCCGAACCCC  
GCCCGCGGCCACAGCGTCTGCTCCACCTCCAGCTTGTACCTGCAGGATCTGAGCGCCGCCGCCCTCAGAGTGCATC  
GACCCCTCGGTGGTCTTCCCTACCTCTCAACGACAGCAGCTCGCCCAAGTCTGCGCTTCGAAGACTCCAGC  
GCCTTCTCTCCGTCTCGGATTCTCTGCTCTCCTCGACGAGTCTCTCCCGCAGGGCAGCCCCGAGCCCTGGT  
CTCCATGAGGAGACACCGCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTT  
GTTTCTGTGGAAGAGGAGCGAGCTCCTGGCAAAAGTCAGAGTCTGGATCACTTCTGCTGGAGGCCACAGCAAA  
CCTCTCACAGCCCACTGGTCTCAAGAGGTGCCACGCTCTCCACATCAGCACAACTACGAGCGCTCCCTCC  
ACTCGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGACAGTGTGAGAGTCTGAGACAGATCAGCAACAAC  
CGAAAATGCACCAGCCCCAGTCTCGGACACCGAGGAGAATGTCAAGAGCGCAACACACAACGTCTTGAGCGC  
CAGAGGAGGAACGAGCTAAAAACGAGCTTTTTTGCCCTGCGTGACCAGATCCCGGAGTTGGAAAAACAATGAAAAG  
GCCCCAAGGTAGTTATCCTTAAAAAAGCCACAGCATACATCTGTCCGTCCAAGCAGAGGAGCAAAAGCTCATT  
TCTGAAGAGGACTTGTTCGGAACGACGAGAACAGTTGAAACACAACCTTGAACAGCTACGGAACCTCTGTGCG  
TAAAGGAAAAGTAAGGAAAACGATTCTCTTAACAGAAATGTCTGAGCAATCACCTATGAACCTGTTTCAATGC  
ATGATCAATGCAACCTCACAACCTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAA  
ATTGGACTTTGGGCATAAAAGAACTTTTTTATGCTTACCATCTTTTTTTTTCTTTAACAGATTGTATTTAAGA  
ATTGTTTTTAAAAATTTTAA

**FIGURE 209**

MPLNVSF TNRNYDL DYDSVQPYFYCDEEENFYQQQQQSE LQPPAPSEDIWKKFELLPTPPLSPSRRSGLCSPSYV  
AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNII IQDCMWSGFSA AAKLVSEKLA  
SYQAARKDSGSPNPARGHSVCSTSSLYLQDL SAAASECIDPSVVFYPLNDSSSPKSCASQDSSAFSPSSD SLLS  
STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEE EIDVVSVEKRQAPGKRSESGSPSAGGHSKPPHSPVLKRC  
HVSTHQHNYAAPSTRKDYPAAKRVKLD SVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF  
ALRDQIPELENNEKAPKVVLK KATAYILSVQAE EQKLISEEDLLKKRREQLKHKLEQLRNSCA

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**FIGURE 210**

GGCAGGCATGGGAGCCGCGCCTCTCTCCCGCGCCACACCTGTCTGAGCGGCGCAGCGAGCCGCGGCCGGGG  
GGGCTGCTCGGCGCGGAACAGTGTCTCGGCATGGCAGGGATTCCAGGGCTCCTCTTCTCTCTTCTTTCTGCTCT  
GTGCTGTTGGGCAAGTGAGCCCTTACAGTGCCCTTGGAAACCCACTTGGCTGCATACCGCTCCCTGTCTGCTCT  
TGCCCCAGTCTACCTCAATTTAGCCAAAGCAGACTTTGGAGCCGAAGCCAAATTAGAAGTATCTTCTTTCATGTG  
GACCCAGTGTCTATAAGGGAACCTCCACTGCCCTTACGAAGAGGCCAAGCAATATCTGCTTATGAAACGCTCT  
ATGCCAATGGCAGCCGCACAGAGACGCAGGTGGGCATCTACATCCTCAGCAGTAGTGGAGATGGGGCCCAACACC  
GAGACTCAGGGTCTTCAGGAAAGTCTCGAAGGAAGCGGCAGATTTATGGCTATGACAGCAGGTTTCAGCATTTTGG  
GGAAGGACTTCTGTCTCACTACCTTTTCTCAACATCAGTGAAGTTATCCACGGGCTGCACCGGCACCTGGTGG  
CAGAGAAGCATGTCTCACAGCTGCCCACTGCATACACGATGGAAAAACCTATGTGAAAGGAACCCAGAAGCTTC  
GAGTGGGCTTCTTAAAGCCCAAGTTTAAAGATGGTGGTTCGAGGGGCCAACGACTCCACTTCAGCCATGCCCGAGC  
AGATGAAATTTTCAGTGGATCCGGGTGAAACGCACCCATGTGCCCAAGGGTTGGATCAAGGGCAATGCCAATGACA  
TCGGCATGGATTATGATTATGCCCTCCTGGAACCTCAAAAAGCCCCACAAGAGAAAATTTATGAAGATTGGGGTGA  
GCCCTCTGTCTAAGCAGCTGCCAGGGGGCAGAATTCACCTTCTCTGGTTATGACAAATGACCGACCAAGCAATTTGG  
TGATCGCTTCTGTGACGTCAAAGACGAGACCTATGACTTGTCTTACCAGCAATGCGATGCCAGCCAGGGGCCA  
CGGGTCTGGGGTCTATGTGAGGATGTGGAAGAGACAGCAGCAGAAGTGGGAGCGAAAAATTTATGGCATTTTTT  
CAGGGCACCAGTGGGTGGACATGAATGGTTCCCCACAGGATTTCAACGTGGCTGTGAGAATCACTCTCTCAAAT  
ATGCCAGATTTGCTATTGGATTAAAGGAACTACCTGGATTGTAGGGAGGGGTGACACAGTGTTCCCTCCTGGC  
AGCAATTAAGGGTCTTCATGTTCTTATTTTAGGAGAGGCCAAATGTTTTTGTGATTGGCGTGCACACGTGTGT  
GTGTGTGTGTGTGTGTGTGAAGGTGCTTATAATCTTTTACCTATTTCTTACAAATTGCAAGATGACTGGCTTTA  
CTATTTGAAAACCTGGTTTGTGTATCATATCATATATCATTTAAGCAGTTTGAAGGCATACTTTTGCATAGAAAATA  
AAAAAAATACTGATTGGGGCAATGAGGAATATTGACAATTAAGTTAATCTTCAGTTTTTGCAAACTTTGATT  
TTTATTTTCATCTGAACCTGTTTCAAAGATTATATTAATAATTTGGCATAACAAGAGATATGA



**FIGURE 211**

MAGIPGLLFLFFLLCAVGQVSPYSAPWKPTWPAYRLPVVLPQSTLNLAKPDFGAEAKLEVSSSCGPQCHKGTPL  
PTYEEAKQYLSYETLYANGSRTETQVGIYILSSSGDGAQHRDSGSSGKSRRKRQIYGYSRFSIFGKDFLLNYPF  
STSVKLSGTGCTGLVAEKHVLTAAHCIHDGKTYVKGTQKLRVGFLKPKFKDGGRGANDSTSAMPEQMKFQWIRVK  
RTHVPKGWIKGNANDIGMDYDYALLELKKPHKRKFEMKIGVSPPAKQLPGGRIHFSGYDNDRPGNLVYRFCDVKDE  
TYDLLYQQCDAQPGASGSGVYVRMWRKQQKWERKIIGIFSGHQWVDMNGSPQDFNVAVRITPLKYAQICYWIKG  
NYLDCREG

GGGACCGACGACACGCCCCCCCTCTCTCTTTGTTCCGGGGTCGGCGGCCGCTCTCTGCCAGAGCTCGGGATC  
TCGGCCCCGGGAGGCGGGCGCTCGGGCGCAGCCCGGAAGATCGCTTGGAACTGACCGCAGAGCCGAGTGCAGAAG  
ATCTGGGTGCCCGTGGACACAGGCCCTCGTTGCCACAGATCCTGTGGGCGAAAGCTGACCACTCCCCACCGCT  
ATCGTCATGGTGGGCTCCCCCGGGGCAAGACCTACATCTCCAAGAAGCTGACTCGCTACCTCAACTGGATT  
GGGCTCCCCAAAAGTGTCTCAACGTCGGGGAGTATCGCCGGGAGCTGTGAAGCAGTACAGCTCTCAACCTTC  
TTCCGCCCGACAATGAGGAAGCCATGAAAGTCCGGAAGCAATGTGCCTTAGCTGCTTGAGAGATGTCAAAAGC  
TACCTGGCGAAGGAAGGGGCAAAATGTGCGTITTCGATGCCAACATAACTATAGAGAGGAGACATGATCAT  
CTTCATTTTGGCAAGAAAAATGCTTTAAAGCGTITTTATCATCGAGTCGGTGTGCGACGACCTACAGTTGTGGCC  
TCCAATATCATGGAAGTTAAATCTCCAGCCCGGATTACAAAGACTGCAACTCGGCAGAGCCATGGACGACTTC  
ATGAAGAGGATCAGTTGCTATGAAGCCAGCTACCAGCCCTCGACCCCGACAATGCGACAGGGACTTGTGCGTG  
ATCAAGGTGATTGACGTGGGCGGAGGTTCTGTGGTGAACCGGGTGCAGGACCACATCCAGAGCCGCATCGTGAC  
TACCTGATGAACATCCAGCTGCAGCCGCGTACCATCTACCTGTGCCGGCAGCGCGAAGACGAGCAACCTCCAG  
GGCCGATCGGGGGCGACTCAGCGCTGTCCAGCCGGGGCAAGAAGTTTGCCAGTGCTCTGAGCAAGTTCTGTGGAG  
GAGCAGAACTGAAGACCTGCGCGTGTGGACGACGAGCTGAAGAGCACCATCCAGACGGCCGAGGCGCTCGG  
TCGCCCTACGACGAGCTGGAAGCGCTCAATGAGATCGACGGGGCGTCTGTGAGGAGCTGACCTACGAGGAGATC  
AGGGAACCACTACCTGTAGGAGTATGCGCTGCGGGAGCAGGACAACTACTTACCGCTACCCACCGGGGAGTCC  
TACCAGGACCTGGTCCAGCGCTTGGAGCCAGTGATCATGAGCTGGAGCGGCAGGAGAATGTGCTGGTCATCTGC  
CACCAGGCGCTGCTCGCTGCTGCTTGCCTACTTCTGGATAAGAGTGCAGAGGAGATGCCCTACCTGAAATGC  
CCTTTCAACCGCTGCTGAAACTGACGCGCTGTGCTTATGGCTGCGGTGATCCATGCTACTGCTGAGCGTGGAG  
TCGCTGTGACACACCGGGAGAGGTGACAGGATGCAAGAAGGGACCTAACCCGCTCATGAGACGCAATGATGTCT  
ACCCCGCTAGCCAGCCGCAACCCACCAAAAAGCCTCGCATCAACAGCTTTGAGGAGCATGTGGCTCTCACCTCG  
GCCGCCCTGCCAGCTGCTGCTGCCCCGGAGGTGCCACGACGAGCTGCTGGACAAAACATGAAAGGCTCCCCGAGC  
AGCGCTGACTCTCCAGGAACACTGAGGCAGACGCTGTCGGTTCATTCATTTCCATTTTGTGACGCTTAGCTTG  
TGCTGTGCTCCCGCCGAGCAAAAGCTATCTGAGGACTTCTCCGGAGAGGCTGGGTGGAGCAGCGGGGA  
GCCTTGGCCGAAGAGAACCATGCTTGGCACCGTCTGTGCTCCCTCGGCCGCTGGACACCAGAAAGCCACGTGGGT  
CCCTGGCGCTGCTTTAGCTGGGGGCCCCACCTCCACTCTCTGGGTTCCTAGGAATGTCAGCGCTCGGAGAC  
CTTCACAAAGCCTTGGGAGGTGATGAGTGCTGCTGACAAAGAGCGCGCTGGGGACACTGTCGTTTGTGTTTC  
GTTTCTGTGATCTCCCGCAGCTTTGAGCTGGGAAGACCACACTGGTGGCAAAATCTCAAAATTAAGGAGGCA  
GCCTCTAGTTGCTGAAAGTTAAGGAATGTGTAACCTCCACGTGACTGTTTGGTGATCTTGACGTGGGAAGA  
CGCCTATGGGAACGAATCTGGACAGGTGTTGGTTGACCCCTTCTTACGAGGAATCCCTGAGCTGAGACGCA  
AGTTGGCTGGGTGGTGGTGGCACCTCGTCTGTCAGGTCCACACACTTCCAGGCTGTGGCTGCTCCAA  
GATGTGCAAGGCGAGGCTGGCTGCACGGGGAGAGGAAGTATTTGCCGAAATATGAGAAGCTGGGCGCTCTGCT  
CCAGGGGAGCTCCAGGGCCCTCTCTCTCCACCTGGACTTGGGGGGAACATGAGAAACACTTCTCTGAGAGCTG  
TGCTTTTGCACTTTTTGATGGCAGAAGTGTGACCTGAGAGTCCCACCTCTCTCAGGAAGCTAGATGTCCGG  
GTGCTTTGCGCTGGGGGGCTTGAAGCTCTGAAGTGGGAGCGGAACACTGGCATCTTCCCAAGCTGTGCTGGA  
TTACGGTCCCTGCTCTTCAAGGTGGGGACAGTGGCCCAAGCAAGGCCACACGACGACCACTTCTTCAAGAGCT  
GCTCTGACACTGCTTTGAGACTCTGCTTGTGCTGGCACTCTGCGGCTGCTTTGGGAAGGTCGGTAAGAGTGG  
ACTTTGTCTGGGCTTCCCTTCATGGCGCTAGACACTTTTGTGGTGAATGGAAGCATGGGAGCTGTGCTGAC  
CCTGTTGGTTTCTCTCTATTGCTCAAACCTGGGTAGGTGGAACGGGGGCTCTGTGCCAGATGAACACCT  
TTGGAACCTCGGCAGCAGAGTTTGTCCAAATAGCCCTTTTCAGGATGTCTCAAAGCTTGTGCCAAAGGTCATCTTT  
CTTCTCTGCTCTGCTGTGAGCTGAGATCTCTCCAGCTCAAGGACAGCTCTGGGTGAGGCTGTGCTGGAGA  
TTTAGACCTGAAACTGGGCGTGGAGAGAAGAGCCGTGCTGTTGTTTTTGGGAAGAGCTTTTAAGAAATGC  
ATATTTTAACTGGTGGTAATGTAGTAGGAAGTGAAGCTGTGCTTCAGGTATGGTACAATCAAGTGGGGGATT  
TTATGCTGAACCACTCAAGGCCCTCCCGCTCCCGCATTTCCAGGCCACCTTTGGCTGGCGCTCTGCTGGAGA  
GGATGTCTCTGTGCAATCCCGTGCAGCTCAGCTCGCGCAGGTTTCTCTCTCTCCCTGGATGTTGAGCTCTCAT  
CAGAATATGTGGGTGGGGGTGGACGTGCACGGGTGCATGATTGTGCTTAAGTGGTTGATTTTTCGATTTGAC  
ATGAAGCGCTGTTGCTTGTCTAGAGAATAGTTTCTGTGCCCTTCGACGCCCTCATCTTTGAACCTCATC  
TCTGATGTTTGAACAGATGGGGGCTTGATAGCTGTGGTCCCTTTCCCTCTGACTACGTGAAAATCAATACCT

**FIGURE 212B**

AAATACAGAAGCCTTGGTCTAAACACCGAGACTTTTAGTTTGCGAAGGGGCTTAGATAGGGAGAGAGGTAACATG  
AATCTGGACAGGGGAGGGAGATACTATAGAAAGGAGAACACTGCATACTTTGCAAAGCCAGTGACCTCCTTTTGA  
AGGGGACATTGGACGGGGGCCGGGGCGGGGTTTCGGTTTGACTACCGTCATGAACTTTTGGCGTATACTGATTC  
CTCCAACCTCACCACCCACAAAAATAACGGGGACCAATATTTTTAACTTTGCCTATTTGTTTTTGGGTGAGTTTCC  
CCCCTCCATTATTCTGTCTTGAGACCACGGGCAAAGCTCTTCCATTTTGAGAGAGAAGAAAACTGTTTGGAAACC  
ACACCAATGATATTTTCTTTGTAATACTTGAAATTTATTTTTTTATTATTTTGATAGCAGATGTGCTATTTATT  
TATTTAATATATGTATAAGGAGTCTTAAACAATAGAAAGCTGTAGAAGCTGTAGAGATAGGCTTCAGTTGTTAAT  
TGGTTTGGAGCCTCCTATGTGTGACTTATGACTCTCTGTGTTCTGTGTATTTGTCTGAATTAATGACCTGGGATA  
TAAAGCTATGCTAGCTTTCAACAGGAGATGCCTTCAGAAAGCTTTGTATATTTTGCAGTTGCCAGACCAATAAA  
ATACCTGGTTGAAATACATGGACGAAAAAAAAAAAAAAAAAAAAA

**FIGURE 213**

MPLELTQSRVQKIWVPVDHRPSLPRSCGPKLTNSPTIVVMVGLPARGKTYISKKLTRYLNWIGVPTKVFNVGEYR  
REAVKQYSSYNFFRPDNEEAMKVRKQCALAALRDVKSYLEKEGGQIAVFDATNTTERRRHMLHFAKENDFKAFF  
IESVCDDPTVVASNIMEVKISSPDYKDCNSAEAMDDFMKRISCYEASYQPLDPDKCDRDLSLIKVIDVGRRFLVN  
RVQDHIQSRIVYYLMNIHVQPRTIYLCRHGENEHNLQGRIGGDSGLSSRGKKFASALSKFVEEQNLKDLRVWTSQ  
LKSTIQTAELRLPYEQWKALNEIDAGVCEELTYEEIRDTYPEEYALREQDKYYRYPTGESYQDLVQRLEPVIM  
ELERQENVLVICHQAVLRCLLAYFLDKSAEEMPYLKCP LHTVLKLT PVAYGCRVESIYLNVESVCTHRERSEDAK  
KGPNFLMRNNSVTPLASPEPTKKPRINSFEEHVASTSAALPSCLPPEVPTQLPGQNMKGSRSSADSSRKH

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FIGURE 214

GCGCCGCCGCCGCCGAGTCCCGGCTCGGGGATAGACCGAGGGCCATGCGCCGCTCTCCCGGACCGCCGCCGCTTGG  
CGCGCCGCCGAGCAGTCTACGGCTCCGGCTCTTCGGGCTTCGCCCTCGACTCGGGACTGGAGATCAAAACTCGCTC  
GGTGGAGCAGACGCTACTCCCGCTGGTTTCTCAGATCACCACGCTTATTAATCATAAAGATAATACCAAAAGTCT  
TGATAAACTCTGCAAGCAATTACGGCTGTAGGACAAGCTGTCAACTTGCGAGTTGGAAGATTGTTAAAGTAGG  
AGAAGCTATAGCCAAATGAAACTGGGATTGAAAGAAGAAATAAATTGCTTGTATTGAAGCTAAACAAGCAGG  
AGAAACAATTGAGCAGCTTACAGACATAACCAACTTGAACCATCTGGAATCTGATGGGCAGATCAACAATTTTAC  
AGACAAAACAGGAGTGATAAAGCTGCAAGATTACTTCTTCTCAGTGACAAAAGTGTGTGCTGGCAGACCG  
AGTAGTCATTAAACAGATAATAACATCAAGAAATAAGTTTCTCGCAACTATGGAAGAGCTAGAGAAAGTGAATAG  
CTTTCAAGAGTTTGTCCAAATATTTCAGTCAATTGGAATGAAATGGTGGAGTTTGACATCTGAGTGGAGATAG  
ACAAAATGATTTGAAAGATGAAAGAAAAAGGCAAAATGGCAGCTAGGGCAGTTCTTGAAAGTGTACAAT  
GATGCTTCTCACAGCTTCAAAGACATGTCTGAGGCATCTTAAGTGGCAATGAGCCATAAAACAAGAGAGGT  
ATTTGACCGTATGAAAGTGGCATTGGATAAGGTCATTGAAATTGTGACTGACTGTAAACCGAATGGAGAGACTGA  
CATTTTCATCTATCAGTATTTTACTGGAATTAAGGAATTCAGATGAATATTGAAGCTCTTCGGGAGAATCTTTA  
TTTTAGTCCAAAGAGAACCTTCTGTGACATTGGAAGTCATCTTGAGCGTATGAGGAGCTTTACTGATTCTGC  
CTACACCAGCCATGAGCAGAGAAACGCATCTTGGAACTGTCAACTCAGGCGAGAATGGAATGACAGCAGTTAAT  
TCTGTGTGGATTCAAGCTCAAAGCAAGAAAAACAAAGCATCGCTGAAGAACTGGAACCTCAGTATTTTGAAAT  
CAGTCACAGTCTTAATGAACCTAAGAAAGAACTTCATAGTACAGCGACACAGCTGGCAGCAGATCTATTAAAAA  
CCATGTGATCATGTGGTTCTAAAAGCATTAAACTTACTGGAGTAGAAGGAAATTTAGAAGCTTTGGCTGAATA  
TGCTCTGAAACTCTCTGAACAGAAAGAGCAGCTTGTGAGACCTGTGCTAGTTGACACACATATCTGGGACAGA  
ACCTCTGGAATAAACCCTGTATACATGCAGAGGAGACATTTGAGGTGACTGGCCAAACAGATAAATTTCTGCTGCTGA  
AACATTGACATTGCATCCATCTAGTAAAAATTGCTAAAGAAAACCTAGATGTATTTGTGAAGCTTGGGAATCCCA  
AATTAGTGACATGTCAACACTGTGAGAGAAATCAATGACGTGTTTGAAGGAAGACGAGGAGAGAAGTATGGCTA  
CCTTTCACTTCCAAAGCCAAATGAAGAATAATGCAAACTGAAATCATTAAAGCCAGACAAGCCTGACTCTGAGGA  
GCAAGCCAAAGATAGCAAAGCTTGGACTTAAGCTGGGTTTGCTCACCTCTGACGCTGACTGCGAAATTGAGAAGTG  
GGAAGATCAGGAGAATGAGATTGTTCAATATGGACGGAACATGTCCAGTATGGCCTATTCTCTGTATTTATTAC  
TAGAGGAGAGGGGCCACTGAAACTTCCCAGGATTAAATTCATCAACTAGAGGTTTTGCTGCGAGAGGTTTTAA  
GCTTACTTCCAGTGTTCAAGCTTTTTCAAAACAGCTGAAAGCAGATGACAAAGCTTATGCTTCTCCTGGAAATAAA  
CAAGCTAATTCCTCTATGCCACCAGCTCCAGACAGTAACCTAAGACTTCTTTGAGAAATAAAGTATTCTTAAAGGT  
TGACAAGTGATTACGAAGACAAGATCCATGATGGCTCTCTTAGTCCAACCTTCTTCACTTTGTTATAAACTGCT  
GAAGAAGCTTCAGATGGAAAAATAACGGATGGGTCTCAGTTACAAATAAGGACACTATGGATAGTAAAACTTGAGCA  
AGCTTTTGGGGTCAGATCTCTGGAACATCATGTGATGAAGCTGACATTTTTAAAAATCAAAATGATCCTTTATCTT  
TTCAGAAATTCATCAATTTTATAAAGAAAAACAATATTGAAATTTGCTCTATTCTTGATCATGAAACTGATTGT  
AAAGCTTTTTGACAACTAATAAATGCTCTTGGTAATTGCTAGATTCT

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**FIGURE 215**

MAASPGPAGVGGAGAVYGSGSSGFALDSGLEIKTRSVEQTLPLVSQITTLNHKDNKKSDKTLQAIQRVGQAV  
NLAVGRFVKVGEAIANENWDLKEEINIACIEAKQAGETIAALTDITNLNHLES DGQITIFTDKTGVIKAARLLLS  
SVTKVLLADR VVIKQIITSRNKVLATMERLEKVN SFQEFVQIFSQFGNEMVEFAHLSGDRQNDLKDEKKKAKMA  
AARAVLEKCTMMLLTASKTC LRHPNCESAHKNKEGVFDRMKVALDKVIEIVTDCKPNGETDISSISIFTGIKEFK  
MNI EALRENLYFQSKENLSVTLEVI LERMEDFTDSAYISHEHRERILELSTQARMELQQLISVWIQAQSKKTKSI  
AEELELSILKISHSLNELKKELHSTATQLAADLLKYHADHVVLKALKLTGVEGNLEALAEYACKLSEQKEQLVET  
CRLLRHISGTEPLEITICHA EETFQVTGQQIISAAETTLHPSSKI AKENLDVFC EAWESQISDMSTLLREINDV  
FEGRRGEKYGYLSLPKPMKNANL KSLKPD KPDSEEQAKIAKLGLKLGLLTSDADCEIEKWEDQENEIVQYGRNM  
SSMAYSLYLFTRGEGPLKTSQDLIHQLEVFAAEGLKLTSSVQAFSKQLKDDDKLMLLLEIN KLIPLCHQLQTVTK  
TSLQNKVFLKVDKCITKTRSMALLVQLLSLCYKLLKKLQMENNGWVSVINKDTMDSKT

## FIGURE 216

CGAGGTTCTGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC  
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCCGCCGCCA  
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC  
AGTTTGAGCCAATAGTTTCTCTTCCTGAGCAAGAAATTAACACTGGAAGAAGATGAAGAGGAACTTTTAAAA  
TGCGGGCAAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCAGAAATGGAAGGAGCGAGGCACCTGGTGACGTCA  
AGCTCCTGAAGCACAAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAAGACCCCTGAAGATCTGTGCCA  
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCCTGGGTCTGGAACACCCACG  
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCTGAAATGCTGAGAATGCACAGAAAT  
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC  
ATGCCAAAAAGTGCGGAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC  
AATAAATCGICTTATTTTATTTTCTTTTCTCTCTTTCTTTCTTTTAAAAAATTTTACCCTGCCCTCTT  
TTTCGGTTTGTTTTATTCTTTTCAATTTTACAAGGGACGTTATATAAAGAAGCTGAAC

**FIGURE 217**

MAAAKDTHEDHDTSTENTDESNHDPQFEP IVSLPEQEIKTLEEDDEEELFKMRAKLFRFASENDLPWKERGTGDV  
KLLKHKEKGAIIRLLMRDRTLKICANHYITPMELKPNAGSDRAWVWNTHADFADEC PKPELLAIRFLNAENAKK  
FKTKFECCRKEIEEREKKAGSGKNDHAEKVAEKL EALSVKEETKEDAEKQ



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FIGURE 218A

GTGGGGTGGGGTGGGGCTTGTGCGCCCTTTCAGGCTCCACCCCTTTCGGGAGATTATAAATAGTCATGAT  
CCGACGAGACCCAGAGATGCGCTGAATGGTGAGACTTTGGATCCTTCTGAGGACGTGGAGAAAACTTCTGCT  
GAGAAGGACATTTTGAAGTTTGTGGCTGAAAAAGCTGTTTCTGGAATACCCCTAGATCTTCTTGAAGACT  
TGAATTAGATTACAGCGCATGGGACACAGAAGTACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG  
GCTCTTTCCAATTTGGCTACACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA  
CTTTGACGGACAAGGGAAATGCCCCACCCCTCTGAGGTGCTGCTCACGCTCTCTGGTCTTGTCTGTGGCCATAT  
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCACCCGCTTTGGCAGGCGCAATTCATCG  
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC  
TGATCCTGGGTGCGTTGGTTATGGCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCATGTACATTGGAGAGA  
TCTCGCTACTCGCTGCGGGTGCTTTGGCACTCTCAACAGCTGGGCATCTGTTTGGAAATCTGGTGGCC  
AGATCTTTGGTCTGGAATCTATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTTACCATCCTTCTCTG  
CTATCCTCAAAAGTGCAGCCCTTCCATTTTGCCTGAAAGTCCAGGATTTTGTCTCATTAACAGAAAAAGAGAG  
AGAATGCTAAGCAGATCCTCCAGCGGTTGTGGGACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG  
AGAGTGAAGGATGTCACAAGAAAAGCAAGTCAACGCTGCTAGAGCTCTTTAGAGTGTCCAGCTACCGCACAGCCA  
TCTCATTTCCATTTGGCTCGGACTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTCTATTACTACCAAGGAA  
TCTCAAGGATCGAGGTCTTCAAGAGCCCATCTATGCCACCATCGCGCGGGTGTGGTTAAATCTATTCTTCACTG  
TAGTTTCTCTATTTCTGTTGGAAGGGCAGGAAGAGACTCTGCATATGATAGGCTTTGGAGGGATGGCTTTTT  
GTTCCACGCTCATGACTGTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGATTGGGGCTA  
TCTGGTCTTTGTGACCTTTCTGAAGATTGGACAGGCCCATCTCCGTGGTTTATTTGGCGGAACTCTTCAAGC  
AGGGCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTCCTAGTCGGATTGCTCT  
TCCCCTCCGCTGCTCACTATTTAGAGCCCTACGTTTTATTATCTCACCGGCTTCTCATTACCTTCTTGGCTT  
TTACCTTCTTCAAGTCCCTGAGCCGTGGCAGGACTTTTGAAGATATCACACGGGCCCTTTGAAGGGCAGGCAC  
ACGGTGCGATAGATCTGGAAGAGAGCGGCTCATGGAGATGAACAGCATCGAGCTCTGAAGGAGACCCACCA  
ATGCTTGAAGTCGTGCTCCTTCCACCTCCTCCCGGATGGGAAGCCACCTCTCCCTCAACAGGGAGAGACCT  
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCACGCACTCCATGAGCACC  
CAAAGGCTGCGGTTTGTGGAATCTTCAATGGCTTTTAAATTTTATTTCTGGACATCCTCTCTGCTTAGGAGA  
GACCGAGTGAACCTACCTTTCATTTCAAGGAGGATTTGGCCGCTTGGCACATGACAACCTTGGCAGCTTTTCTCC  
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAAGTGCACTTCCCCCAACCTCAGACTTA  
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGAGGGGTGTTTATGTAAGAGCACCTTCCCTCACTTCCATACAG  
TCTACGTGGCAAAATTAACCTTGAGTTTTATTTATTTTATCCTGTTTATGCTATACATAATTTTTTTTTTACTT  
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTGTACATAGGTATATATATAGCCATGAGGAAATATTAT  
TTTTTAAAGCGTAATTTTGCCAAATAATAAAAAAGAGGAAATGAGATTAGAGGAGGTGTTTAAAGAGAGGT  
TATAGAGTGAAGAATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAAATTAGGGGAGAAATGTGTTCTATTATGG  
AGGGTAAATGATGGGTGCTGAGGTCTGTACGTTACCTCTTAAACAATTTCTGTCCTTCAGATGGAACCTCTTA  
ACTTCTCGTAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTGGAGCTTTTCTTTAAGATAATAGT  
TTACATGTAGTAGTACTTGAATCTAGGATTATTAACATAATAGGCGATTGTAGTTAATGATGGTTGATGGGTTT  
TAATTTGGATGGAGTCCAGGAAGAGAAAGTGATTCTAGAAAGCCTGTCCCTCACTGGATGAAATTAACCTC  
TCTTGTAGTAGTCTCATTTAGTTTGAAGTAATCCCGCACCTATCTCGGGGAGGCCATCCAAATAGAAACC  
TAAAAATAATGGTTCTTGGTAGAGATTCATTATTTTCCACTTTGTCTTTAGGAGATTTTAGGTGTTGATTTC  
TGTTGATATTAACTACATACCTTTAAAGGAATTTCCCAAGGAATGTTTATAGCAACTTGGAAATTTGTAACCTCA  
GCTCTGGGAGGAGGATTTTTTCTGAGCGATTATATCTTAAAGTGTTGTTGTCTTTAGGCTCACGCCAGCTTGC  
GTATGTCTGTACCATGTCACGTGTGGTCTATGCCGAATGCCCTCAGGGGACTGAATCTTTCCAATAAACCAAG  
TTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACGTGTCACCTTTGCTC  
TGGGTGGAAGTACGTTATTGTGACTTATTTCTGTGTTTGTCTCAAGGCTGTTGTTGCTTTAGGCTCACGCCAGCTTGC  
TCTCCCTTCCCTTCTTGGTCTTACACATCTCAGACCCCTTAGGCCAAACCTGTCTCAGTGACAGTATTTGGTT  
CTTAGTTCTCACTGTTCCCTCTGCTCTGGAGCCCTTGAATAAAAAATGACAGTGTAGCTGAGGCGGATGCGGTGGC  
TACGCTGTAAATCCCAAGCTTTGGGAGGCTTAGCGGGCGGTGAGGGTTGAGACAGCTGTGGCCACATCG  
TGAAACCTGTCTACTATAAAATGCAAAAAATAGCCGGGCGTGGTGGCGGCGCTGTAATCCCAAGCTACTTGG

**FIGURE 218B**

GAAGCTGAGCGGGAGAAATCATGTGAACCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT  
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA  
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT  
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCCTTGTGTTTTAAAAATAAAA  
TTCTGAATGTACAG

**FIGURE 219**

MGTKQVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLDKGNAPPSEVLLTSLWSLSVAIFSVGGM  
IGSFSVGLFVNRFGRNRNSMLIVNLLAVTGGCFMGLCKVAKSVEMILGRLVIGLFCGLCTGFVPMYIGEISPTAL  
RGAFGTLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFITLPAILQSAALPFCPEsprfLLINRKEEENAKQI  
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIIISIVLQLSQQLSGINAVFYYSTGIFKDG  
VQEPYIYATIGAGVVNTIFTVVSFLVERAGRRTLHMIGLGGMAFCSTLMTVSLLLKDNNGMSFVCIGAILVFVA  
FFEIGPGPIPWFIVAELFSQGPRAAMAVAGCSNWTNSFLVGLLFPAAHYLGAYVFIIFTGFLITFLAFTFFKV  
PETRGRTFEDITRAFEQAHGADRSKDGVMEMNSIEPAKETTTNV

GTGGGGTGGGGTGGGGCTGGGGGCTTGTGCGCCCTTCCAGGCTCCACCCCTTTCGGGAGATTATAAATAGTCATGAT  
CCAGCGAGACCCAGAGATGCGTGTAAATGGTGAGACTTTGGATCCTTCTGAGGACGTGGAGAAAACCTTTCTGCT  
GAGAAGGACATTTTGAAGGTTTGTGTGGCTGAAAAGCTGTTTCTGGAATCACCCCTAGATCTTCTTGAAGACT  
TGAATTAGATTACAGCGCATGGGACACAGAAGGTACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG  
GCTCTTTCCAATTTGGCTACAAACATGGGGTCAATGCTCCTGAGAAGATCAAAAGGAATTTATCAATAAAA  
CTTTGACGGACAAGGGAATGCCCCACCCCTCTGAGGTGCTGCTACGCTCTCTGTGGTCTTGTCTGTGGCCATAT  
TTTCCGTCGGGGTATGATCGGCTCCTTTTCCGTGGGACTCTTCGTCACCCGCTTTGGCAGGCGCAATCAATGC  
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAGTAGCTAAGTCGGTTGAAATGC  
TGATCCTGGGTGCGTTGGTTATTTGGCTCTTCTCGGAGCTCTGCACAGGTTTTGTGCCATGTACATTGGAGAGA  
TCTCGCTACTGCCCTGCGGGTGGCTTTGGCACTCTCAACCAGCTGGGCATCGTTTGGGAATTTGGTGGGCC  
AGATCTTTGGTCTGGAATTCATCTCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCTCTG  
CTATCCTCAAAAGTCGACGCCCTTCCATTTTGGCCTGAAAGTCCAGGATTTTGTCTCATTAACAGAAAAGAGAGG  
AGAATGCTAAGCAGATCTCCACGGGTTGTGGGCAACCCAGGATGTATCCCAAGACATCCAGGAGATGAAGATG  
AGAGTGAAGGATGTCAAGAAAAGCAAGTCACCGTGTCTAGAGCTCTTTAGAGTGTCCAGCTACCGACAGCCCA  
TCATCATTTCCATTTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA  
TCTTCAAGGATCGAGGTCTTCAAGAGCCCATCTATGCCACCATCGCGCGGGTGTGGTTAATACTATCTTCACTG  
TAGTTTCTCTATTTCTGTGGAAAGGGCAGGAAGAGCACTGTCATATGATAGGCCCTGGAGGGATGGCTTTTT  
TCTCCACGCTCATGATGCTTTCTTTGTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA  
TTTGGTCTTTTGAAGCTTCTTTGAGCAATTTGACCAAGGCCCATCTCCTGGTTTATGTGGCCGAACTCTTCAGCC  
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCGGGTGTCTCAACTGGAGCTCCAACCTTCTAGTCGAGTTGCTCT  
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTATTACTTCCACGGCTTCTCTATTACCTTCTTGGCTT  
TTACCTTCTTCAAAGTCCCTGAGACCCCTGGCAGGACTTTGAGGATATGACACGGGCTTTGAAGGGAGAGCAC  
ACGGTGCAGATAGATCTGGAAGAGCAGCGCTCATGGAGATGAACAGCATCGAGCCCTCGTAAGGAGACACCA  
ATGCTTAAAGTCGTGGCTCCTTCCACCTCCTCCCGCATGGGAAAGCCACTCTCCCTCAACAGGGAGAGACCT  
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCCAGCACTCCATGAGCACC  
CAAAGGCTCGGGTTTGTGTGAATCTTCAATGGCTTTTTAAATTTTATTTCTCGGACATCCCTCTTCTGCTTAGGAGA  
GACCAGTGAACCTACCTTTCATTTACGAGGGGATTGGCCGCTTGGCAGATGACAACCTTTGCCAGCTTTTCTCCTCC  
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCACTTCCCCAACCTCAGACTTA  
CCAGGAAGCAGATACATATGATGTGGAAGCCGAGGGTGTATGTAAGACGACCTTCTCTACTTCCATACAGC  
TCTACGTGGCAAAATTAACCTTGAGTTTTATTATTTATCCTCTGGTTTAAATACATAATTTTTTTTTTTTACTT  
TAAGTTTACAGGATACATGTGCCGAATGTGCAGGTTTGTACATAGGTATATATATGCCATGATGGAATATTAT  
TTTTTTAAGCGTAATTTTGCCAAATAATAAAACAGAAGGAAATGAGATTAGAGGGAGGTTGTTTAAAGAGAGGT  
TATAGAGTGAAGATTGTAGCTCGAGAGGTTAAGGTGCAATAAGAAATTTAGGAGAAATGTGTGTTCTATTG  
AGGGTAAATGATGTGGTGCCTGAGGTCGTACGTTACCTCTTAAACAATTTCTGCTCTCAGATGGAACCTTTA  
ACTTCTCGTAAAAGTCATATACCTATAATAAAAGCTACTGATTTCTCTTGGAGCTTTTTTCTTAAAGATAATAGT  
TTTACGTAGTAGTACTTTGAAATCTAGGATTATTAACATAATTTAGGACTTGTAGTTAAATGATGGTTGATGGGTT  
TAATTTTGGATGGAGTCAGGGAAGAGAAAGTGATTCTAGAAGGCTGTCCCCCTACTGGATGAATAACTCTC  
TCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCACTTCTCTGTGGGAGAGCAATCCAAATAAGAAAC  
TAAATAATTTGGTCTTGGTAGAGATTCAATATTTTTCCACTTTGTCTTTAGGAGATTTTAGGTGTTGATTTT  
TGTTGATTTTAACTCATACCTTTAAAGGAATTTCCCAAGAAATGTTTATAGCAAACTTGGAAATTTGTAACCTCA  
GCTCTGGGAGAGGATTTTTTCTGAGCGATTATTAATCTGAAGTGTGTTGCTGTAGGCTCACGGCAGCTGTGC  
GTATGCTGTTACCATGTCTACTGTGTCTCTATGCCGAATGCCCTCAGGGGACTGAATCTTCCAAATAAACCAAG  
TTAGACAGATGATGACTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCATGTCTCACTTTGCTC  
TGGGTGAAGTAGCTGTTTGTGTTGATTTTCTCTGTGTTTCTACAGGCCCTTTTTCATATGTTGTCTGAC  
TCTCCCTTTCCCTTCTGGTGCTTACACATCTCAGACCCCTTAGCCAAACCTTGTGAGTGACAGTATTTGGTT  
CTTAGTTTCTCACTGTTCCCTCTGCTCTGGAGCCTTTGAATAAAAAATGCACGTAGCTGAGGCGGATGCGGTGCG  
CCAGCCTGTAAATCCCAAGCATTTGGGAGGCTTAGCGGGCGGTGAGGAGGCTCTGAGACCACTTGGCCAACTGC  
TGAACCCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCTGTAATCCAGCTACTTGG

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**FIGURE 220B**

GAAGCTGAGCGGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT  
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA  
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATI  
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCCTTGTTTTAAAAATAAAA  
TTCTGAATGTACAG

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**FIGURE 221**

MGTKQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM  
IGSFSVGLFVNRFGRNRSMILIVNLLAVTGGCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL  
RGAFGTILNQLGIVVGILVAQIFGLEFILGSEELWPPLLGFITILPAILQSAALPFCPESPRFLLINRKEEENAKQI  
LQRLWGTQDVSDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDG  
VQEP IYATIGAGVNTIFTVVSFLVERAGRRTLHMI GLGGMAFCSTLMTVSLLLKDNYNMGMSFVCIGAILVFVA  
FFEIGPGPIPWFI VAELFSQGPRPAAMAVAGCSNWT SNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV  
PETRGRITFEDITRAFEGQAHGADRSGKDGV MEMNSIEPAKETTTNV

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**FIGURE 222**

GTGAAACACCCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTGTTTGAACATGGTGCGGACTAA  
AGCAGACAGTGTTCCAGGCACCTTACAGAAAAGTGGTGGCTGCTCGAGCCCCAGAAAGGTGCTTGGTTCTTCCAC  
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAAATAAATATGCAGGAGGGAACCCCGTTTGGCT  
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCCTTAGGTTGTCCCTAAAGATTCTGAAAAAGAGAA  
TCAGATTCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA  
CACAAATGATGAAAAAGAATAGAACTTTCTCATTTCATCTTTGAATAACGTCCTCTGTTTACCCCTGGTATTCTAG  
AATGTAATTTACATAAATGTGTTTGTTCCAATTAGCTTTGTTGAACAGGCATTTAATTAATAAATTTAGGTTTA  
AATTTAGATGTTCAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACCTAGCTTAGTATTCA  
ATATAATGCATTGTTTGGTTTCTTTTACCAAAATTAAGTGCTAGTTCTTGCTAAATCAAGTCATTGCATTGTGT  
TCTAATTACAAGTATGTTGTATTGAGATTGCTTAGATTGTTGTACTGCTGCCATTTTATTGGTGTITGATTA  
TTGGAATGGTGCCATATTGTCACCTCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTGCACATTAATAAATT  
CAGTATTAATT

**FIGURE 223**

MVRTKADSVPGTYRKVVAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD  
SEKENQIPEEAGSSGLGAKRRKACPLQPDHTNDEKE



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**FIGURE 224A**

CGGACGCGTGGGAACGAAGCCACCCATTACGGTATGATGTGCAACGTGATGCTGATGCTACAGTTACAGCCC  
 CTGCTGGCGCAGCCTCTCTGATTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTCAGACAAGTGCACTCTCC  
 TAACCAAGGTTCACATTTACGCCGCGAGCCACTCTCCGCCAGTCAACCGGAGGCGAGACCCGGGAGGAGAGCTGAGGA  
 CAGCCGCGTGCCTCTCGCCAGCAGCGGGGTGGGAGGAAGGACATTAATAATCTGCAGAAGCTCAAGACCCCCCAGG  
 TCGAACCCAGACAACGAGATCGAGCCCGCGGCTGCGGGCGCTGGTGTCCGCTGCTGCTCTCTGGCCGCGGAGC  
 CCTGGCCGAGGCGCAGCCGAAGGGGCTCAAGGAGGGCGAGACCCCGCGCAATTTCTATGGAGGACGAGCAATGGCT  
 GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCACTGGAACCGCTTCCGAGACGAAGTGGAGGATGACTATAT  
 CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCAACAGGACCCCTGCCAGAAGGTGAAGTG  
 CAGCCGCCACAAGGTGTGCATTTGCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGAAGAAGCTGGAGCACAG  
 GATCAAGCAGCGCCCGGTGAACCTCCATGGAAACAAGACTCCATCTGCAAGCCCTGCCACATGGCCACAGCTTGC  
 CTCTGTCTCGCGCTCAGATGGCCACACTTACAGCTCTGTGTGAAGCTGGAGCAACAGGCGTGCCTGAGCAGCAA  
 GCAGCTGGCGGTGCGATGCGAGGGGCCCTGCCCCCTGCCCAACGAGCAGGCTGCCACCTCCACCGCCGATGGCAA  
 ACCAGAGACTTGCACCGGTGAGACTTGGCTGACCTGGGAGATCGGCTCGGGGACTGGTTCACAGCTCCTTCATGA  
 GAACCTCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCGGCCAGCGGGCTGGACAAGACCTTGGGGGCCAG  
 CTCGAAGGACTCCATTGGCTGGATGTTTCTCCAAGCTGGACACCAAGTGTGACCTCTTCCTGGACCAGACGGAGCT  
 GGCCGCCATCAACCTTGGACCAAGTACAGGCTTGCATCCGCTCCCTTCTCAACCTCTGGACCTTCAAGAGGATGG  
 CCGGGTCTCTACTGCTGAGTGGTGCCTCTGCTTCTGAGGGAGAAAGCCCCCTGCCTGGCAGAGCTGGAGGCGAT  
 CCAGATCCAGGAGGCGCCGAAGAAGAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA  
 GATGCGATGTGACCAGAGCAGCGGTGACTGTGGTGTGTGGACCACTGGCCGTGGACCTGTGACACTTACAGGCGAC  
 GCATGGGAGCCCCGACTGCGATGACATCTGTGGGCTTCTCGGGGACTTTGGAAGCGGTGTGCGCTGGGAGCATGA  
 GGAGGAGAAGGAGCAGGAGAGCAGCGAGGAGGCGAGGAGGAGGCGAGGCGAGGCGAGGCTGACAGCAGG  
 GGGCTACATCTGGT**TAGAC**CGCCCTCAGAAGCCGGCTGCCGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG  
 GCAACTTGCAGAAAGGATCGAAGAATGCAGTCAGAAGGACCCCTGCTCCACTCTGGGGGACTGGGAGTGTGAGTGT  
 GCATGGCATGTGTGTGGCACAGTGGCTGGGACGGGTGACATGTGAGTGCATGTGTGCATGATGTGTATGT  
 GTGTGTGTGTGTGGCATGCGCTGACAAATGTGTCTTGATCCACACTGCTCCTGGCAGAGTGAGTAACCAAAGG  
 CCCCCTCGGCCCTCCTTGTAGCTGTTTTCTTTCTTTGTTGTTGGTTTTAAATATACATTACACACAAATACAAA  
 TTGACAGGTCAAAATCCATGAAATGAGATCCCCAGCCGTGCTCCAGCCAGCCCTGACCCCTTGGTTTCTAC  
 CCTGGCTCCCTTGGTTTCTACCTTGGCTCAACCGACCCCTGTCTGCCCTTCTCCCTCTGCTTCTGAGGTCAAG  
 CTCTGGCCTGCGAGCCTGTCCCCATTGCAAAAGGGAGGGAGGGGCGAGGAGCTGTCTACCAGCTGAGGTCTCTCC  
 AAAACTGGGGCCGATGTGGTGTGATCTCCCCACCAAGCCTCAGATGAGACGGGCGAGGACGCCAGCCAGCCAGCTG  
 CCTGTCCCTTTGCCGGATCCCCAAACATAGAGAAGCTCTCTTAACCCAAGGCGGAGAAATGAAGGTGGTGGCGCG  
 AGAGGAGGAGGGCGAGCTGAGAGGCCAGGGACAGGGTGCCCTCGCCAAAGCTGTCTGAGGTCTGTCCCAAGTGGC  
 CAGAGTGGTGAGGTGAGAACAGGCTGAGGAGAGGGGGTGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG  
 AGGAGCTTTTAGGTGTGTGAGATGGGCGAGCTCTGAATCTAGACCTTGAATAGCCTTGCCCTTTCTCTGGGT  
 TCGTGGTGGAGCCATGATCTGGGCTGCTCTTGGGACACTGGGTGGTGTGTACAGACTGTGACCTTGCCCTGGCTGGC  
 TCCCCCTTGGTGCAACTCTGGCTTCAATCCCCCTTGTGTTGGGTCCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA  
 GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGGTGTGTGCCACCTCTCCTTGACCTTTAACACTCTCT  
 GTCTCCCGACACCAAGGAGAGGAGTGTCCCTGAGACCCCGGAGAGAAGCAGCTGCCAAAGCTGCGACGCTTTTC  
 CGCACTCTGAGACCATGATCTCTCTCTGCCAGGGGAGAGCCACCCACAGGCCATGTCCAGCCCCACTTCCCTCA  
 GCCCCAGGCTTCTCTTGCCGCCCTCTGAGGATTCCTTAGGGCTGCCCCGAGAGGGGCTTCCCAAGCTCTGT  
 TTTGAGGCTGCAATGTGGGAAAAGTGAGAAGTCAGAGGGAACAGGACAGGTCGAGCGGGCTCTGAGGCCACACC  
 TCACACCTCGCTGTTCGCCAACATCCCCGTGAGCAGTGTGAGCTCATCTACCCAGATGAGAAGAGGCCCTGTGCTAT  
 TTCTTTTGTGTTGTTGTGTGCTTTTCCCCCACCATCCAGTTCTCTCTCAGCAAGGAAATTCCTTAACACCTTT  
 GGTGGAGAATTTCTTACCAGACTTGGGGCTGTGATGCCCTTCAAGTGGTGGTGTGATGCGAGCTGTGCGGCTGTG  
 CCTGTGTGTGAACCTTGGGGCCATCTCTGTGGCTTGGGAGCGTGAGGAGAGGCCCTCTGTGTGCTGGGTGAGTGG  
 TGGGTGTGGGGTCAATGCACTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGCTCCCCAGCTCCACAGCATCTG  
 TAGGCTCTGTGGACTTTACAGAAGAGCCTATCCGCTGTGCCCTCACTTGCCTCGAGTCAAGCAATCAACATCTCCG  
 AGTCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACTCCATAAATGCTTCCCATTCGCGACGCCAGTTCGAT

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**FIGURE 224B**

TGTTGAGGTGTCGCGTCGTTCCAGGTCCCCAGTCCCCTCTTTCTCCTGCTCTCTCTGTCTTCACTCCCCA  
CTCCAGCCCCGGCTCAGTTCAAGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCGCTCTGA  
CTCGGAGCTACTTGAACTTCTGCTCTTGTCTAGGATTGGAGTCTACCTATCTCTTCCATTGTCCCAGCTGGAGT  
TCTGGAACTTTCTCCTCTCGGGGTGGGGGTGGGGGTTGTTAAGGATGCTGGGGGGCTGGGGAAGGAAGGAGTTCA  
GAGGAAGGGTGTCCCCTGTCTCTTGTATGTCACCTCCGCTCCTGGGACAGTGCTCTCTCTGTCTCTGGGTCTT  
CTGGCTGTGCACGTTTGTGTCTCTTGTAAATATGTTTATAGGAAGAAAGCAAAGGGACTGAACTAGCCTCTGTT  
AGGATTGCAAGGGGTCCAGCCTTGCTGTTTCCGAAGCCCCACACTGCTTTCGCCCCACTGAGACTGGTCCCCT  
CAAAAGGTAGACAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCTCAAAAGTGCTTTTGTGTAGACAAGGTT  
AAGGTTTCTCATGAGCAAGGTTGCAGATCGGTCTTCTCAGCTCCTTGATTGTGACCTTGACCAAGGGGCT  
GCCACCCAGCCCTCCAGTGCCTCTCCTCGATGCCTGCTCCTTCTGCCCCACTCCCTTGCTTAGGCAGGT  
AGGGGAATTAGGGCCATGCTGGAAGAAGCTTAACCATGTGTTCAAAGAAGGCTTCTTGCTTGTCTGGTCTGGA  
ACTCCCCTTGGCTGCCCCAGGCTCTTGGCCATGGGTGCTGGGGAGGTGGATGTCAGATCTGGTAGGTTGCA  
GCAGAGAAAATAAATGTGCTTGAGAGACCACTCAGAGAGGGTCCAAGGGTGATGGAGAAGGAAGCATGGCTGG  
GAGCTTGGAAGGGAGGGGTGGTGGGTGGCGGCATCTTGACTGCCCTTGTGTCACACAGTGGGGGTGGTCAC  
CCCCCTTCACTCCAGCCCGCTGCCTTACGCTTCCATGAGCTTCACTTGCTTCCAACTTCACTTTGGAGGGGT  
GGGGTCCGTTGGCATCAACACGGGGACCTCTGCTTACCAAAGCCCGAGCCCTCAGCCCCGAGGAGAACAAAT  
GGCTGAGCTTTGATACCTGGGGTCTGTCAGAGGCTGCGGGCTGGCGGCAGTCCCAGGGGAGAGACACCACAGAAG  
GAGACCCAGACATCCCGAGGAAGTCCCAGCAGAGCAAACCTGCTTCCAGCCTGAAGCCTGCTTAACTGTGTGA  
TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCCTGCTGTAGATTAACTGCTGAA  
ATTGTATCTCTCAGTAATTTTAGATGCTTTTAAAAAATTGAAAAACAAAGTGTAGACTGTGTCGCTGCGCTT  
GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCTTTCCTTGCGCCCCATCTCTCAGTCCCGGCC  
TGCTCCACTTGGGACCTCGCTGCTGCTTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC  
ACACATGCATAAAGGAAATCAATGTTATTTTAAAGAAATGAAAATAAAAACTTTATAAACAC

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**FIGURE 225**

MRAPGCGRLVLPLLLLAAAAAEGDAKGLKEGETPGNFMEDEQWLSSISQYSGKIKHWNFRDEVEDDYIKSWED  
NQQGDEALDTTKDPCQKVKCSRHKVCIAQGYQAMCISRKLEHRIKQPTVKLHGNKDSICKPCHMAQLASVCGS  
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSQN  
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAAINLDKYEVCIRPFFNSCDTYKDG RVSTA  
EWCFCFWREKPPCLAELERIQIQAAKKKPGIFIPSCDEDGYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD  
CDDIVGFSGDFGSGVGEDEEEKETEEAGEEEEEEGEAGEADDGGYIW

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FIGURE 262A

TTCCGGTGGCCCTCTAGTGAGACTCTGGAGGATCCAAGGATTCTGTAGCTACAATGTGTGTCAGAACTTTTTCGAATGC  
ATGCGCTCTTTTGTGGCCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCGATGATGTCCA  
TGAACATGTTTACTGGTAAACAAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTGTGA  
GCAGTGACATTATAATTCTGACAATAAACACGATGCATAGCCATCTGTATATTACTTCCAGTTCCGAAATTTAC  
GTCAACTTTGGATCAAAATATTTTGGGTATTGTCTGGCCCTTTTCAAAATTTTCAAGTTTGTATTTCAGTACAG  
TTGTCTACTCTTCTTAGACAAAGAAATTGACAGGCTTGAATGAAGCTTTTGCCCTTTTTCCTACTTTTGTATGACC  
TTTCCAGAGCAAGCACATTGCAAAAGTTTGGCCCTCAGTTTCCAACCTCAGGATGAAGTAAAGGAAAAATTTGCTC  
GTGGAAATGGCAATTTTAGGTCCTACGTTTACCCTCGATGCTCTTGTGTAATGCTCTGTGATTTGGAGTTGGTACCA  
TGTGAGGGGTACGTGAGCTTGAAATATATGTGCTGCTTTTGGCTGCTATGTCAGTTCTTGCCAACTACTCTGCTGTCCA  
GAGATCTTCTCAAAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAGCGCGAGGGTCTGTCCAATTTGGC  
AGCTCAGCCATTTTGGCCGAGTTTGAAGAAGAAGAAAAAAGCCGAATCTCTGAACCTCAGAGGGTCAAGATGA  
TTATGTCTCTAGGCTTGGTCTTGTTCATGCTCAGAGTCGCTGGATAGCTGATCTCTCTCCCAAACAGTACAG  
CAGATCTTCTAAAGTTTTCATTAGGACTGGATGAAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTCCCTCTGGC  
AGTTTATCTCTCTAAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTTAAGTTTAGCTCTCTCTCTGGCTG  
TCAAGTACATCTCTTTGAACAACACAGAGACAGAATCTACACTCTCATTAAAAAACCCCTATCACATCTCCCTGTAG  
TGACACAAAGAAGTCCCGACAAATTTGTTGAGACGTGAACCTATGCTGGTCAGAAATAACCAAGAAATGTGATT  
CAGTAGAGGAAGAGACAGGGATAAACCCGAGAAAGAAAAGTTGAGGTTATAAAACCCCTTAGTGCTGAAACAGATA  
CCCCAAACAGAGCTACATTTTGGTTGGTAACCTCTCTTACTCGATACCTTCATCAGTACTGGTGACACAGGAAC  
CTGAATTTGAACCTCCCGAGAACCTCGGCCCTTAATGAAGAATGTCTACAGATCTTGGGAATACAGAGAAAGGTG  
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGTCAAGCATATCCGAGCTTCAAGTTGGAAACTC  
TGATGGAACCTCATGAGCGTGGTGATCTATTTCGCCGACGTTACTTTCCAAGAAGCTTTCAGAACTTCTCTC  
TCCAGTACCTACCTTACAGGGATTATAATTACTCTCTTGGTGATGGGAGCTTGTGTGAGAAATGTTATTGGATATA  
TGCCCATCCCTGTGGAGTGGCAGGACCCCTTGTCTAGATGAAAAAGAAATTCAAGTTCCAATGGCAACAACAG  
AAGTTGTCTTGTGGCCAGCAACCAATAGAGGCTGCAGAGCAATAGGCTTGTGGTGGAGTGGCAGCAGCCGAGTCC  
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGCTTCCACGTGCTTGTGACTTCGAGAAGTGAAGCCCTGGC  
TCGAACATCTGAAGGGTTTCGAGTGATAAAGGAGGCATTGACAGCACTAGCAGATTTGCACGCTCAGACAAAC  
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGATGCCATGGGGAATGAACA  
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAACCTTACAGAGTATTTCCCTGAATGAGATTTAGCCGTTA  
GTGGTAACATTTGTACTGACAAGAAACCTGTGCTATAAAATGGATAGAGGGAAGAGGAAAACTGTTGTTTGTG  
AAGCTGTCTATCCAGCCAAAGTTTGTGACAGAGAAGTATTAAGACTACCAACAGCGCTATGATTGAGGTCAACATTA  
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCGACAAACATTTGTACCCG  
CCATCTACATTTGCTTGGACAGGATGCAGCAGAGAATGTTGGTAGTTCAAACGTATTACTTTAATGGAAGCAA  
GTGTCGCCACAAATGAAGATTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACCGGTGGGTGGGGA  
CCAACCTACTACCTCAGCAAGCCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAAGATAAATCCTGGGGAAA  
ATGCCGCGAGCTTGCCGAAATGTTGTGGGACCGTAATGGCTGGGGAATTTGTCACCTTATGGCAGCATTTGGCAG  
CAGGACATCTTGTCAAAAGTCACATGATTCACAACAGGTGCAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA  
CCAAGAGACAGCCCTGAAATAGCCCGACAGTTCTGAACTGGAACATGGGCAATTTGGGTCTTAAGAGCATTAACATAAA  
ATCTGTGAATATAAAAGCTCAATGATTGTCTTGTGGAGGATGAATAATGTGATCACTGACAGGCAAGCCACTGG  
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTCTTCTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA  
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATAATGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA  
CCTCTGAAGACAAATATAAGCTGGGAAAAAAGTTTGTATGAATCTTGAAGTTCTAGGTGATCAGTGTGCAATTTGA  
CCTTCTCCCTCACTCCTGCCAGTTGAAAAATGGATTTTAAATATACTGTAGCTGATGAACCTCCTGATTTTGTA  
GTTAATTTAATGCTGGGATGTAGAATTTCAAGAAGTAAAGAGCTAAGTTCTAAGTTCAATGTTTGTAAATTAAT  
ACTTCTTTTGGTGTGGTCTAATTTTGGGGGTAATCAGCATATTCTTCAAGAGGGGACCTGTTTCTCT  
CAAGGGAAGAAACACTCTTATCCCAAACACAGAAATAATGTGTTAAACATGCTAATAGTCTTATCAGGAAAC  
AAATCACTGTATTATCTCCGACGGCTATTGTTTCAGAGAGGCTTTTGTTTAAATATAAATGTTTAAATATAA  
GTTTTGCTGGATTGGCTATAACAGTCTTTCAGCATTAGGCTTTAAGAAACACAGGGTTTGTATTCTTCTACT  
AAGAGTCTCAGAGCTCTTAATGTGCTTAGATGAGGGTGACTGCAAGTACAAGCAGAGCTGGGACCTTAGAAAT

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**FIGURE 226B**

CATTGTAGAAACACAGTTTTTGAAAGATTTTTACCATGCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA  
TTTAGTTGAAAAATCTAGTTTTTTTTGTAACTGTACCAATCTGTATATGTTGTAATAAACTTATGCTAGTTT  
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG  
TTCTTTAATGTTGTCAGGAACCCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT  
GAAGGAGCCACGTGAATGCCCTAGAACTGTGCCTAGTTCCTGTGGCCAGGAGGTTGGTGACTGAAACATTACACA  
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT  
TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTTGCTCT  
TGGAAAGCTGATGATGCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCCT  
CTTAGTGATTGTGCTGCATTGTTATTGTGGAAGATTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG  
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGCCAGTGAAAAATATGTTGAGTGTTCAA  
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA  
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

**FIGURE 227**

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSMNMFTGNKICGWNIECPKFEEDVLSSDIIILITITRCIAILY  
IYFQFQNLRLQGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLRSASTLAKFALSSNSQ  
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVMTFFPACVSLVLELSRE  
SREGRPWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR  
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCRRPEML  
VRNNQKCDSEETGINRERKVEVIKPLVAETDTPNRATFVVGNSLLDTSSVLVTQEPEIELPREPRPNEECLQ  
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIRRQLLSKKLSEPSLQYLPYRDYNYSLVMGA  
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAGLGGGASSRVLADGMTRGPFVVRPRAC  
DSAEVKAWLETSEGFAVIEAFDSTSRFARLQKLHTSIAGRNLIRFQSRSGDAMGMNMISKGTEKALSKLHEYF  
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN  
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG  
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKTA

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FIGURE 228A

TTCCGTTGGCCTCTAGTAGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTGTGTCAGAACTTTTTTCAATGC  
ATGGCCTCTTTTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGCACACTGACCATCTGCATGATGTCCA  
TGAACATGTTTACTGGTAACAAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGAGTGTTTGA  
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTACTTCCAGTCCAGAAATTTAC  
GTCAACTGGATGGAATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTGTATTGCATAGAC  
TTGTCTATTCACTTCTTAGACAAGAATTGACAGGCTTGAATGAAGCTTTGGCCCTTTTCTCAATTTTGATTGACC  
TTTCCAGAGCAAGCATATTAGCAAAAGTTTGGCCCTCAGTTTCCAACCTCACAGATGAAGTAAGGAAAAATTTGGC  
GTGGAATGGACATTTTAGGTCCTACGTTTACCCTCGATGCTCTTGTGTAATGCTTTGTGATTGGAGTTGGTACCA  
TGTGAGGGGTAGCTCAGCTTGAATATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTCCA  
TGACTTTCTTCCACGCTTGTTGTCTTGGTATTAGAGCTTTCTCGGGAAGCCGCGAGGGTGTCTCCAATTTGGC  
AGCTCAGCCATTTTGCCCGAGTTTGAAGAAGAAGAAAAAAGCCGAATCTGTAACTCAGAGGGTCAAGATGA  
TTATGTCTCTAGGCTTGGTCTTGTTCATGCTCAGAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG  
CAGATACTTCTAAGGTTTTCATTAGGACTGGATGAAAAATGTGTCCAAGAGAAATGAAACCAAGTGTTCCTCTGGC  
AGTTTTATCTCTCTAAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG  
TCAAGTACATCTTCTTTGAACAACACAGAGACAGAATCTACACTCTCATTAAAAAACCCCTATCACATCTCCTGTAG  
TGACACAAAAGAAAGTCCCGAGAACTTGTGTGAGAGTGAACCTATGCTGTGTGAGAATAACCAAGAAATGTGATT  
CAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAGTTGAGGTTATAAAACCCCTTAGTGGCTGAAACAGATA  
CCCCAAACAGAGCTACATTTTGTGGTTGGTAACTCCTCCTTACTCGATACCTTCATCAGTACTGGTGACACAGGAAC  
CTGAAATGGAATCTCCCGAGGAACCTCGGCCTAATGAAGAATGCTACAGATACTTGGGAATAGCCAGAAAGGGT  
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCAATCTCCAGCCTTACAAGTTGGAAATCT  
TGATGGAACCTCATGAGCGTGGTGTATCTTATTCGCCGACAGTTACTTTCCAAGAAGCTTTCAAGAACCTTCTCTCT  
TCCAGTACCTACCTTCTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAAATGTTATTGGATATA  
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAAATTTCAAGTTTCCAATGGCAACACAG  
AAGGTTGCTTGTGTGCCAGCAGCAACATAGAGGCTGCAGAGCAATAGGCTTGGTGAGGTTGCCAGCAGCCGAGTCC  
TTGCAGATGGGATGACTCGTGCCCCAGTTGTGCGTCTTCCAGTGCTTGTGACTTCGAGAAGTGAAGGCTGGC  
TCGAAACATCTGAAGGGTTGCGAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTGTCAGCTCTACAGAAAC  
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA  
TGATTTCAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA  
GTGGTAACATTGTACTGACAAAGAAACCTGCTGCTATAAAATGGATAGAGGGAAGAGGAAAACTGTTGTGTTTG  
AAGCTGTCAATTCCAGCCAAGGTTGTCAGAGAAGTATTAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA  
ACAGAAGATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAACATTTGTCACCG  
CCATCTACATTTGCCGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACTGTATTACTTTAATGGGAACAA  
GTGGTCCCAAAATGAAGATTATATATACGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTTGGTGGGA  
CCAACCTCACTACTCAGCAGAGCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAGAATAATCTTGGGGAAA  
ATGCCCGGAGCTTGGCCGAATTTGCTGTGGGACCGTAATGGCTGGGGAATGTGCATTATGGCAATTTGGCAT  
CAGGACATCTTGTCAAAAGTCACATGATTCAACAACAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA  
CCAAGAAGACAGCTGAAATAGCCCCGACAGTTCTGAACTGGAACATGGGCAATTGGGTTCTAAAGGACTAACATAAA  
ATCTGTGAATTAATAAAGGCTCAATGCAATTTGCTTGTGGAGGATGAATAAATGTGATGACTGAGACAGCTTCTGG  
TTTTTGGCTCTTTCAGAGAGGTTCTCAGGTCTTCTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA  
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA  
CCTCTGAAAGCAAAATATAAGCTGGGAAAAAGTTTGTATGAAATCTTGAAGTTCTGTTGATCAGTGCAATTGA  
CCTTCTCCCTCACTCCTGCCAGTTGAAAAATGGATTTTAAATTAAGTGTAGCTGATGAACCTCCTGATTTTGTGA  
GTTAATTTAATAGTCTGGGATGTAGAAGTTCAAGAAGTAAGAGCTAAGTTCTAAGTTCATGTTTGAATTAAT  
ACTTCAATTTGGTGCTGGCTATTATTTGATTGTTTGGGGGTAATCAGCATTTGATCTTCAAGAGGGGACCTGTTTCTT  
CAAGGGAAGAAACACTCTTATCCCAAACTACAGAAATATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAAAC  
AAATCACTGTATTATCTCCGACGGCTATTGTTTCAGAGAGGCCCTTTGTTTAAATATAAATGTTTAAATATAAA  
TGTTGTGCTGAATTTGGCTATAACATGCTTTTACAGCATTAGGCTTTTAAGAACAACAGGGTTTGTGATTTCTACT  
AAAGATATCAGAGCTTTAATGTTGCTTAGATGAGGGTGACTGTCAGTACAAGCAAGACTGGGACCTTAGAAAT

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**FIGURE 228B**

CATTGTAGAAACACAGTTTTTGAAAGATTTTTACCATGCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA  
TTTAGTTGAAAAATCTAGTTTTTTTGTAACTGTACCAATCTGTATATGTTGTAATAAACTTATGCTAGTTT  
ATTGGAAGTGTTCAAGAAATAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG  
TTCTTTAATGTTGTCAGGAACCCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAGTCAGCTTTCAGAGCCAGT  
GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCC TAGITCCTGTGGCCAGGAGGTTGGTGACTGAAACATT CACA  
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT  
TTTAATGTACAAGTTTTGTATAAATAATAAGAACTCCTATTTTTGTATTACATCTAATGCTTAAGTGTTGCTCT  
TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT  
CTTAGTGATTGTGCTGCATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG  
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGCCAGTGAAAAATATGTTGAGTGTTCAAA  
AAAGTGACTGTAATTAATATCTTGTCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA  
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA



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**FIGURE 229**

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNKICGWNYECPKFEEDVLSSDIIILITIRCIAILY  
IYFQFQNLRLGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ  
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMISGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE  
SREGRPWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR  
IEPSVSLWQFYLSKMSMDIEQVITLSLALLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCCRREPML  
VRNNQKCDSEVEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLDTSVLTQEPEIELPREPRNEECLQ  
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETMETHERGVSIIRQLLSKKLSEPSLQYLPYRDYNYSLVMGA  
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRCRAIIGLGGASSRVLADGMTRGPVVRLPAC  
DSAEVKAWLETSEGFAVIKEAFDTSRFRALQKLHTSIAGRNLRIIRFQSRSGDAMGMNMI SKGTEKALSKLHEYF  
PEMQILAVSGNYCTDKKPAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN  
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG  
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKTKTA

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**FIGURE 230**

GGCACGAGGAAGATATATGGATACAGATTATATATATATACATATTTTCCTTAATAGAGGAATGCTTCATATT  
ATTCAAAAATTATATCCTGATCACCTTTTTTGTITTTTATTGTAAAGTATCTCTGCTTTATCCATTGCTGAATT  
CGATAGGATGTTGAAATGCTGGTCACCAAAAAAGGAACTGAGCAAATTCATTTCAACAACATCAAACTTCAGC  
TTCTCATAGTAAAAAGCTGAATGTACTAATATTTTCATATCTAAAAAAAATTCCTAGCAATGAAATTGCTGT  
TAAACACAAAATTCATCAAAATACTTTTGTGTATAGAAAATATGTATAGTAGGTAGATAGAAAAGTATAAAATG  
TTTGTGGAAGTATCTTATTTTGAATGAATGGAGAAATGCCAAAGATGAATCCTTCCTGCATTATGAAAAATATT  
TCACATGTTCTCTGGACTTTATATAAATCTGTAATAGATTTTGAATTGAAAAATTCCTTGTGAAGGCTTCTTA  
AAAGTGTTCCAATTTATCTCAAAATCTCCATATATAGGATCAGCTTAAACATAAAGAAAACCTTGAATTTCTCA  
AATGTTTGAGATGTTCAAGACAGTCTCTTAATCCGTTAATGCTTTTGGAAACAATTGACAAAATAGGGCAGGCAG  
CTCATCTCATGTCTGGAAGTTGGAATTTAAATAATTCCTATTTGCAAATTAGAATGACAGTGTTGGAATTTGGAG  
GCAGTAGTTGAGCATATTCTCTAGTATATAGCTACACCTTTAATAAAATGAAGGAATGCTTCAATCATATTTTA  
GTGGGCTATTTATAAATAGTCTTGAAGTCAATTTAGTTTATTTATTTAAAGATAATGCATCCTGAAAGGGATCA  
TTTATGAATAACAATCTGAAGTCTTTTCATAAAAAAATTAATAAACTTTAGTTGTACATTTAGCCAGTGTTATT  
TGAAGTATGTAACCTTTTAAATATTAAGTGTCTTGTATGATTAGAATATGTGAATGAGTAACCTATTTTGTATCA  
GGAATGTTTTGGTACTGTGTTTTCACTCAAACCACTGACTTAACAGATACTGCTGTGTATAACATGTACTAAATA  
TTACAGTTATTGTGCATAACAGATTGTTCTCTTATATTTGTGTATACAGGCAATTCATGTTTTAATGTAAAT  
AAATACCATTTTGCAGTTAAAAAAAATTTTTTTTTT

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**FIGURE 231**

GGGGGGGGGGGACCACTTGGCTGCCTCCGTCCCGCCGCGCCACTTGGCTGCCTCCGTCCCGCCGCGCCACTT  
CGCTGCCTCCGTCCCGCCGCGCCGCGCC**ATGC**CTGTGGCCGGCTCGGAGCTGCCGCGCCGCGCCCTTGCCCCC  
GCCGCACAGGAGCGGGACGCCGAGCCGCTCCGCGCACGGGGAGCTGCAGTACTGGGCGAGATCCAACACATC  
CTCCGCTGCGCGCTCAGGAAGGACGACCGCACGGGCACCGCACCCCTGTCGGTATTGCGCATGCAGGCGCGCTAC  
AGCCTGAGAGATGAATTCCCTCTGCTGACAACCAACGTGTGTTCTGGAAGGGTGTTTGGAGGAGTTGCTGTGG  
TTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCTTCCAAGGGAGTAAAAATCTGGGATGCCAATGGATCCCGA  
GACTTTTGGACAGCCTGGGATTCTCCACCAGAGAAGAAGGGGACTTGGGCCAGTTTATGGCTTCCAGTGGAGG  
CATTTTGGGCGAGAATACAGAGATATGGAATCAGATTATTCAGGACAGGGAGTTGACCAACTGCAAGAGTGATT  
GACACCATCAAACCAACCTTGACGACAGAAATCATCATGTGCGCTTGGAAATCCAAGAGATCTTCCTCTGATG  
GGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTATGTGGTGAACAGTGAGCTGTCTGCCAGCTGTACCAGAGA  
TCGGGAGACATGGGCCTCGGTGTGCCTTTCAACATCGCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATC  
ACGGGCTGAAGCCAGGTGACTTTATACACACTTTGGGAGATGCACATATTTACTGAATCACATCGAGCCACTG  
AAAATTCAGCTTTCAGCGAGAACCAGACCTTTCCCAAGCTCAGGATCTTCGAAAAGTTGAGAAAATTGATGAC  
TTCAAAGCTGAAGACTTTCAGATTGAAGGTACAATCCGCATCCAACATATTAATGGAATGGCTGTT**TAG**GGT  
GCTTTCAAAGGAGCTTGAAGATATTGTCAGTCTTTAGGGGTTGGGCTGGATGCCGAGGTAAAAGTCTTTTTGC  
TCTAAAAGAAAAAGGAAGCTAGGTCAAAAATCTGTCCGTGACCTATCAGTTATTAATTTTAAAGGATGTTGCCACT  
GGCAAAATGTAAGTGTGCCAGTTCTTTCCATAATAAAAGGCTTTGAGTTAACTCACTGAGGGTATCTGACAAATGT  
GAGGTTATGAACAAAGTGAGGAGAATGAAATGTATGTGCTCTTAGCAAAAACATGTATGTCATTCAATCCCAC  
GTACTTATAAAGAGGTTGGTGAATTTACAAGCTATTTTGAATATTTTGAATATTTTAAAGATTTTCAAA  
GCTATTCCTCAAATCTGAGGGAGCTGAGTAACACCATCGATCATGATGATAGAGTGTGGTTATGAACTTTATAGT  
TGTTTTATATGTTGCTATAATAAAGAGTGTCTGC

**FIGURE 232**

MPVAGSELPRRLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGILSVFGMQARYSLRDEFPLLT  
TKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGDLGPVYGFQWRHFGAEYRDME  
SDYSGQGVQDLQRVIDTIKINPDDRRIIMCAWNPRDLPIMALPPCHALCFYVVNSELSQLYQRSMDMGLGVPF  
NIASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLRILRKVEKIDDFKAEDFQIEG  
YNPHTIKMEMAV

CTATCCGCGCGCTCGCCGGCCAGTCTCTGCTGACGGGAGGATCTGAAGCCGGCCGCGAGGTCAAAGAGTAAA  
ATGAAGTACATTCTGGTTACTGGTGGTGTATATCAGGAATTGGAAAAGGAATCATTGCCAGCAGTGTGGGCACA  
ATACTCAAGTCATGTGGTTTACATGTAACTTCAATCAAAATTGACCCCTACATTAACTATTGATGCAGGAACATTC  
TCTCCTTATGAGCATGGTGAGGTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACATGAG  
CGGTTCCCTTGACATCCGCTCACCAAGGACAATAATCTGACCACTGGAAAAGATATACCAGTATGTCAATTAACAAG  
GAACGGAAAGGAGATTACTTGGGGAACCTGTCCAAGTTGTCCTCATATCAGATGCAATCCAGGAGTGGGTG  
ATGAGACAGCGCTTAATACCTGTAGATGAAGATGGCTGGAACTCAAGTGTGTATTATTGAGCTTGGTGGAAAC  
GTGGGGACATAGAAGCATGCCCTTTATTGAGGCTTCGCTCAGTTCCAATTCAAGGTCAAAAGAGAGAATCTT  
TGTAACATCCACGTGAGTCTAGTTCGCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT  
GTTCCGGAACTTAGAGGACTTGGGCTTTCGCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA  
GTGAAGGAGAAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAAGTATCTGTGTCCACGATGTCTCATCCATC  
TACCGAGTCCCTTGTGTTAGAGGAGCAAGGGGTTGTAGATTATTTCTCGAAGACTTGACCTTCCATTATTGAG  
AGGCAGCCAAGAAAAATGCTGATGAAATGGAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT  
ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCCTGTGCATTAAAGCTCTGGAGCATTCTGCA  
CTGGCCATCAACCACAAATTGGAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG  
CCCGTGCCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGTTCCAGGAGGATTTGGTGTT  
CGAGGAACAGAAGGAAAAATCCAAGCAATTGCTGGGCTCGGAATCAGAAAAGCCTTTTTTGGCGGTGTGCTTA  
GGGATGCGAGTTGGCAGTGGTTGAATTTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTTACAGAGTTTGGAC  
CCTACGACCATCATCCCGTGGTGTAGACATGCCAGAACACAAACCCAGGGCAGATGGGCGGAACCATGAGGCTG  
GGCAAGAGGAGAACCCTGTTCCAGACCAAGAACTCAGTCATGAGGAACTCTATGGAGACGCAGACTACTTGGAA  
GAGAGGCACCGCCACCATTGAGGTGAATCCAGTCTGGAAAAGTGTTTGAAGAACAAGGCTTGAAGTTGTT  
GGCCAAGATGTTGAAGGAGAGAGAATGGAATTTGGAGTTAGAAGATCATCCCTTTTTTGTGGGGTTCAGTAC  
CACCTGAGTTCCTGTCCAGGCTATCAAGCCCTCCCCACCATACTTTGGGCTCCTCCTGGCCTCTGTGGGGCGG  
CTCTCACATTACCTCCAGAAAGGCTGCAGGCTCTCACCAGGGACACCTATAGTGACAGGAGTGAAGAGCAGTCC  
CCTGACTCTGAAATCACCGAACTGAAGTTTCCATCAATAAATCATGACTGATCTTTGTAGCGGATGATTCTTCAAG  
AGACCCCTTCAAACCTTGGGTAGAGTTTACAGCTCTGACTTTACACTCGGCTTTGGAGACTTCTTTAAATATTGTT  
TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAAACTTGTCACTTGCAATGCCATCACGTGTACTGG  
CTCCTCTGTGGTGTCTGCCTGTTGCGTGCACACTCTCCTTGCAAGTCTTGTAGTTGCGGCGAGAACATCGCATGGGA  
ACCGATGGTGGGTGGGGCTGCAGATGTCCCATCGGTACCTTGTCTTCAACTACCTCGCATCATTTGCAGATCG  
TAGCGCGTTGCCGTGTCCTTTCCCTTGGATACCTAGACCGTTATAAAGTGGCCACATGGACTTACCGAGCATGG  
AGAGAGGATTTTAGCTAGGATTTGAACACTTGGTGCTGGGAACCTCAGGGTATTGCTTGCCACTAAGCCATGAAA  
CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATCTCAGTGCCAACTGTGGCTGGTCTCTATTCAA  
GGACCGTCAAGTTGGTGTCAACATGAACACCAAGATGCTGTCTCGAAGCGTGATTTTAAATCCCCATGCC  
TGTGCGTGCCTTCTATTCTTAGGGCTGGGAAACACTCCTTGCACTAAGGGGTCACTTACAGAAACAAAGATCT  
TTTGGGGAAACTTCTCTAAACCCCTCTCATATATAGACAGCTTTGACTGAGGGGTCATTTTCTTCCAGAT  
GGTGTACTGCGAGTTGAAGGCAATATGAAGTACTTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA  
CTATATCTTGGCCAGACTCGATGTGACTCTAACTTAAGAAATAAATCAGTAAGCGAG

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**FIGURE 234**

MKYILVTGGVISGIGKGIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFLDDGGEVDLDLGNYE  
RFLDIRLTKDNNLTGKIYQYVINKERKGDYLGKTVQVVPHTDAIQEWVMRQALIPVDEDGLEPQVCVIELGGT  
VGDIESMPFIEAFRQFQFKVKRENFCNIHVSLVPQPSSTGEQKT KPTQNSVREL RGLGLSPDLVVCRCNSNPLDTS  
VKEKISMFCHEVEPQVICVHDVSSIYRVPLLEE QGVVDYFLRRDLPIERQPRKMLMKWKEMADRYDRLLETCS  
IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEPPVRYHEAWQKLC SAHGVLVPGGFGV  
RGTEGKIQAIAWARNQKKPFLGCLGMQLAVVEFSRNVLGWQDANSTEFDP TTSHPVVVDMPEHNPGQMGGTMRL  
GKRRTLFQTKNSVMRKLYGDADYLEERHRH RFEVNPVWKKCLEEQGLKFVGQDVEGERMEI VELEDHPFFVGVQY  
HPEFLSRPIKSPPPYFGLLLASVGRLSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINH D

GC GCCCAGCTGCAGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCGAGCAGCCCG  
CGGCCCGCGCTGCCCGCACTCCTGGTCTGCTCGGGCTCTGTTCCAGGACCTGGCAATGCCAGACATCTGTG  
TCCCCCTCAAAAGTCATCTCGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCAGCTCCTGTGACCAGCCCAAG  
TTGTTGGGCATAGAGACCCCGTTGCCATAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG  
AGCAATGTGCAAGAAGATAGCCAAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC  
CTCACCCTGTACTGGACTCCAGAACGGGTGGAACCTGGCACCCCTCCCTCTTGGCAGCCAGTGGGCAAGAACCTT  
ACCTACGCTGCCAGGTGGAGGTGGGGCACCCCGGCCAACCTCACCCTGGGTGCTCTCTCGTGGGGAAGGAG  
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCAGGTGCTGGTGAGGAGAGATCACCATGGA  
GCCAATTTCTGCTGCCGCACTGAACCTGGACCTGCGGCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCC  
TACCAGCTCCAGACCTTTGTCTTGGCAGCGACTCCCCACAACCTTGTGACGCCCCGGGTCTTAGAGGTGGACAG  
CAGGGGACCGTGGTCTGTTCCCTGGACGGGTGTTCCAGCTCTCGGAGGCCAGGTCCACCTGGCACTGGGGAC  
CAGAGTTGAAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCTCAGTCAGTGTGACCCGAGAG  
GACGAGGGCACCCAGCGGTGACGTGTGCAGTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC  
ATCTACAGCTTTCGGGCGCCCAACGTATTCTGACGAAGCCAGAGTCTCAGAAGGGACCGAGGTGACAGTGAAG  
TGTGAGGCCACCCCTAGAGCCAAGGTGACGTGAATGGGGTTCAGGCCAGCCACTGGGCCCCGAGGGCCAGCTC  
CTGCTGAAGGCCACCCAGAGGACCAACGGGCGCAGCTTCTCCTGTCTGCAACCTGGAGCTGGCCGCCAGCTT  
ATACACAAGAACCAGACCCGGGAGCTTCTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC  
TGGACGTGGCCAGAAAAATCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT  
CTAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCAGATCTTGAGGGCACCTACCTC  
TGTGCGGCCAGGAGCACTCAAGGGGAGGTCAACCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT  
GTCATCATCACTGTGGTAGCAGCCGCACTATAATGGGCACTGCAGGCCCTCAGACGTACCTCTATAACCCGAG  
CGGAAGATCAAGAAATACAGACTACAACAGGCCAAAAAGGGACCCCCATGAAACCGAACAACAGCCACGCGCT  
CCCCTGAACCTATCCCGGGACAGGGCTCTTCTCCTCGGCCCTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA  
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGAGGACAGGCGATTGTCTCAGTCAGA  
TACAACAGCATTGGGGCCATGTTACCTGCACACCTAAAACACTAGGCCACGCACTGATCTGTAGTCACATGAC  
TAAGCCAAAGGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG  
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACCTGGGAAATACTGAAACTTGCTGCCATTGGGTATGCTG  
AGGCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAGGCCCACTTCTCT  
GACGGATGCCAGCTTGGGCACTGCTGCTACTGACCCCAACCCCTTGATGATATGTATTTATTCATTTGTTATTTT  
ACCAGCTATTTATTTAGTGCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCAGCGGAGCTCCAGTCCA  
TGTCACATTTCAAGGTCACAGGTACAGTTGTACAGTTGTACACTGCAGGAGAGTGCTGGCAAAAAGATCAAA  
GGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT  
ATGGACTGGTAATGGTTCAGAGTTACAGAGATTACCAAGTGAGGCCCTATTCTCCCTTCCCCCAAAAGTGA  
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTACAAATGACACTCAGCGGTCTATGCTGGAC  
ATGAGTGCCAGGGAATATGCCAAGCTATGCCCTGTCTCTTGTCTCTGTTCTTACTTGGAGCTGCGCACT  
ATTGACGCTCCAGTTTCTCTGCAGTGATCAGGGTCTGCAAGCAGTGGGGAAGGGGCCAAGGTATTGGAGGACTC  
CTTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGAGACAAGCTCTCGCTCTGTCAACCCAG  
GCTGGAGTGCAGTGGTGCATCATGTCTTCACTGCACTCTTGACCTTTGGGCTCAAGTGATCTCCCACTCAGC  
CTCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC  
GGGCTTCGCAACATTGCCAGACTTCTTTGTGTAGTTAATAAAGCTTTCTCAACTGCC

**FIGURE 236**

MAPSSRPALPALLVLLGALFPGGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLPGNN  
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPWQPVGKNLTLRCQVEGGAPRANLTVVL  
LRGEKELKREPAVGEPAEVITTVLVRRDHHGANFSCRTDLRPOGLELFENTSAPYQLQTFVLPAATPPQLVSPR  
VLEVDTQGTVCVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTADEGTQRLTCAVILGNQSQE  
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL  
EVAGQLIHKNTRELRLVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFPLPIGESVTVTRD  
LEGTYLCRARSTQGEVTRVTVNVLSPRYEIVIIITVVAAMVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTMPKP  
NTQATPP



[illegible]

**FIGURE 238**

MAPSSRPALPALLVLLGALFFGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLPGNN  
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL  
LRGEKELKREPAVGEPAEVTTTTLVRRDHGANFSCRTELDLRPQGLELFENTISAPYQLQTFVLPAITPPQLVSPR  
VLEVDQTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE  
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL  
EVAGQLIHKNTRELRLVLYGPRLDERDCPGNWIWPENSQQTPMCQAWGNPLPELKCLKDGTFPLPIGESVTVTRD  
LEGTYLCRARSTQGEVTVREVTNVLSPRYEIVITVVAAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTMPKP  
NTQATPP

## FIGURE 239

CTTCGGTCCTGCTGTAGTGCCTTCTGCGCCAGGCCCGGTTCAATCAGCGGCCACAACCTGTCTAGGGCTCAGACAC  
CACCAGCCAAATGAGGGAGGGCACGTGGAGCCGCGTCTGGGCTCGCGGCTCCTGACCAATGCGGGAAGTGGCATGTG  
GGAGGGCGCCGGGTTCCCCCGCCAATGGGGAGCTACGGCGCGCGGCCGGGACTTGGAGGCGGTGCGGCGCGGC  
GGGTGCGGTTCACTCGGTGCGCGCGCGGAGCGGAGGAGGAGGAGGAGGAGGAGGATGAGGAGGATGAGGAGGATG  
TGGGCCACGCAGGGGCTGGCGTGCCTGGCTCTGAGCGTGCTGCCGGGCAGCCGGCGCTGCGGCCGGGCGAC  
TGCGAAGTTTGTATTTCTTATCTGGGAAGATTTTACCAGGACCTCAAAGACAGAGATGTCACATTCTCACCAGCC  
ACTATTGAAAACGAACCTTATAAAGTTCTGCCGGGAAGCAAGAGGCAAAGAGAATCGGTTGTCTACTATATCGGG  
GCCACAGATGATGCAGCCACCAAAATCATCAATGAGGTATCAAAGCCTCTGGCCCACCACATCCCTGTGGAGAAG  
ATCTGTGAGAAGCTTAAGAAGAAGGACAGCCAGATATGTAGCTTAAGTATGACAAGCAGATCGACCTGAGCACA  
GTGGACCTGAAGAAGCTCCGAGTTAAAGAGCTGAAGAAGATTCTGGATGACTGGGGGGAGACATGCAAAGGCTGT  
GCAGAAAAGTCTGACTACATCCGGAAGATAAATGAACTGATGCCTAAATATGCCCCCAAGGCAGCCAGTGCACCG  
ACCGATTTCTAGTCTGCTCAATCTCTGTTGCACCTGAGGGGGAAAAACAGITCAACTGCTTACTCCCAAAACAG  
CCTTTTGTAAATTTATTTTTTAAGTGGGCTCCTGACAACTACTGTATCAGATGTGAAGCCTGGAGCTTTCCTGATG  
ATGCTGGCCCTACAGTACCCCATGAGGGGATTCCTTCTCTTGTGTGTGTACTCTAGGACTTCAAAGTGT  
GTCTGGGATTTTTTATTAAAGAAAAAAATTTCTAGCTGTCAAAAAAAAAA

**FIGURE 240**

MGKWHVGGRRGSPRQWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRMRMRMWATQGLAVRVALSVLPGR  
ALRPGDCEVCISYLGRFYQDLKDRDVTFSPATIENELIKFCREARGKENRLCYIGATDDAATKIIINEVSKPLAH  
HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP  
KAASAPDIL

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**FIGURE 241**

CGGAGCCGCCCGCTGAGGTACAGAAGGAGCGTCTGCGTGATCGGGTCCGCCGCGCCAGAGCCAGAGTCGCAG  
CCGAGGGGAGCCGGGGCCGGAGCCCGAGCCCGAGCCGAGCCGAGCCGAGCGAGCGGCGGAGACCGTGCCCCCG  
CCTCGGCCCGCGCCGCCGCGGCCAGGCCCGGC**ATCG**GAGGAGAGTGCCGGGTGCTCTCCATACAGAGCCACGTC  
ATCCGCGGCTACGTGGGCAACCGGCGGCCACGTTCCCGCTGCAGGTTTGGGATTTGAGATTGACGCGGTGAAC  
TCTGTCCAGTTTTCAAACACACAGGCTATGCCCACTGGAAGGGCCAAGTGCTGAATTCAGATGAGCTCCAGGAG  
TTGTACGAAGGCCTGAGGCTGAACAACATGAATAAATATGACTACGTGCTCACAGGTTATACGAGGGACAAGTCG  
TTCTTGCCCATGGTGGTGACATTGTGCAGGAGCTGAAGCAGCAGAACCCAGGCTGGTGACGTGTGTATCCA  
GTCTTGGGTGACAACTGGGACGGCGAAGGCTCGATGTACGTCCCGGAGGACCTCCTTCCCGTCTACAAAAGAAAA  
GTGGTGCCGCTTGACAGACATTATCAGGCCCAACCAAGTTTGAAGCCGAGTTACTGAGTGGCCGGAAGATCCACAGC  
CAGGAGGAAGCCTTGCGGGTGATGGACATGCTGCACTTATGGGCCCGACACCGTGGTCAACACAGCTCCGAC  
CTGCCCTCCCCGACGGGACGAACTACCTGATTGTGCTGGGGAGTCAGAGGAGGAGGAATCCCGCTGGCTCCGTG  
GTGATGGAACGCATCCGGATGGACATTGCAAAGTGGAACGCCGTCTTTGTGGGCACTGGGGACCTGTTTGTGCGC  
ATGCTCCTGGCGTGGACACACAAGCACCCCAATAACCTCAAGGTGGCCTGTGAGAAGACCGTGTCTACCTTGAC  
CACGTTCTGCAGAGGACCATCCAGTGTGCAAAAGCCAGGCCGGGGAAGGAGTGAGGCCAGCCCATGCAGCTG  
GAGCTGCGGATGGTGACAGCAAAAGGGACATCGAGGACCCAGAGATCGTCGTCCAGGCCACGGTGCTG**TGAG**GG  
CCCCGCCGCTTGCCCGTGACACGACGCGCTTGGTGTCTCCGTGTTTGTCCTGTGAAAACATGTAACGTCTGCC  
TTAGAGCCATGACC**GAA**ACTTGATATTTTTTCTTTCATGAGTGTCCGGCATCTGCTGGTCTTCATTGTGAAACG  
TGCCAGTCGTGCTTGTGAAAAATAACAAAGTGGTCACAAAAA

**FIGURE 242**

MEEECRVLSIQSHVIRGYVGNRAATFFLQVLGFEIDAVNSVQFSNHTGYAHWKQVLNSDELQELYEGLRLNNMN  
KYDYVLTGYTRDKSFLAMVVDIVQELKQQNPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKVPLADIIITPN  
QFEAELLSGRKIHSQEALRVMDMLHSMGPDITVITSSDLPSPOGSNYLIVLGSQRRRNPAGSVVMERIRMDIRK  
VDAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGEGVRPSPMQLELRMVQSKRDI  
EDPEIIVVQAIVL

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**FIGURE 243**

GAATTCccccccccccagtgctccgCGcGCTCTTGACGTCCGGAGCCCCCTGGAGTAGGCGCTTCCGGCCATT  
CATACTGCAGTCGGTCAGTGTTCCGGTTGAAGGATTCTGTGTGCTGTCCGACCCAGAGGGTGACGGCGCCGCTAGG  
**ATGA**AGCTCGTGAGATTTTGTATGAAATTGAGTCATGAAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC  
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCTGAAGAACAGA  
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCGGTATTTTATTCTACCAGACAGTTTACCT  
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA  
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGCCAGAGGAAGAGGGGGTCTTAGGCGA**TAAT**GTCTCTCAAGATT  
CAAAGTCATATGAGATTTGGGATATTTTTGTACAGGTTGTGTTTGTATTATGTCAGTTTTTAATAAACATAAATG  
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTGTAGTATTTCTCCACATTACAGAAATTACCACAGTGAGA  
GCTAAGCATTTCTACTGGGCAGTTTCATTTTGTAGTTGATCAGGTTTTAAGTTTTTGAACATAAAATTTTCTTTTT  
CTTTTTATGATGAATAAGGTTAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC  
AATTCAACAATCAGGTAGCCCCGTAACCATATAATAGGCTCAGAGGCTTCAGCCCCAGCTGCATAGTTGAAGATTTAT  
GGACAGAAAGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGATAGTTACAGTTACAGCGTTT  
GCCTTATTTGAATATGGTTTGAACAGTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG  
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACCTTGAGATATGT  
AAAGAGACTTTAGGCTAAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACATGAATATGCAT  
TTTATTGCTTTACTCTTCATTCGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTTCGGAAC  
TAAAGTCCTTATGGGATGGGTCTAGAATTGATTCTCCTTTCCCTGAGTTTACTCCAGGAGTCTTAGGTACCTG  
GTAAAGAGTTGTCTTCTAAATTAAAGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTTCCTTTG  
CTTTTAAATCAGTTCCTAATAGGATATAGTTTATGTTTTCGAAGTTATAACTTGGAGTTAATGGTCACTAGATT  
ATCAGTTATGAGCAGTGTTAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCTCTTTTATTAAGGGGTTCT  
TTTGAGAATAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTCT

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**FIGURE 244**

MKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSMNTHLKAVKMTLKNREPQLETLSIRGNNIRYFILPDSL  
LDTLLVDVEPKVSKKREAVAGRGRGRGRGRGRGRGRGRGGPRR



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**FIGURE 245**

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTGTTACTGGGTAGAAGAAAAACAAAAACAAAC  
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGCGCGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA  
ACCTGGGCGAGCAGCGGGGGGCCCGAGGGGATTCTGAAGGAAGATTTCATTAGGTAATTTGTTTAAATCAGTGA  
AAGCGAAATTAAGGGAATGATGATGAGAAAATGAGCAGATACTGAATGTAAACCTGCGAGATCTTGATACTTA  
AGTGACTCTCTCTTTCCGGTGATGAAGAAAAATGCTGGGACTGAGGAAATAAAGAAATGAAATAAATGGAAATTGG  
ATTTCAGCATCTCCATTAAACGAAGCTAGAATTATGCCAAGGCAAAAAAGCGACTAAGGAAAAACTCATCCCGG  
GACTCTGGCAGAGGCGATTCCGTACAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAACTGTGCCAACCCAGT  
CCAAAGGGAAGGTTGCTGGATAGCGGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGCTGCAGGA  
GGCAAGGTTGCTGGGGTACACCTGGCAGGTTGATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT  
GATGACCAGGAGAAGTGTGTTTATGAAACTGTAGTTTGCCTTTGGATGAAAGGGCATTGAGAAGACTTTAAACA  
CCAATCATACAGGAATATTTTGGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT  
GAAATGAAAGTGGAGTACCAGTGTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA  
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAACCTGATGTGGAATAATCATTGATAAATTGTTG  
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT  
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGAACCTGATGATTGTGTGCAGGCTAGAGCTGCT  
CTGGATAAGGCTACCGTGCTCTGAGTATGCTAAAGGTGGAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT  
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA  
TCTGAAGCTGAACATTGCCTTAAGGAACCTGGAAGTACCTCATTTTACCATGAGCTTGTATATGAAGCTATTATA  
ATGGTTTTAGAGTCACTGGAGAAAGTACATTTAAGATGATTTTGATTATTTAAAGTCCCTTTGGAAGTCTTCT  
ACCATTACTGTAGACCAAATGAAAGAGGTTATGAGAGAATTTACAATGAAATCCCGGACATTAATCTGGATGTC  
CCACATTCATACTCTGTGCTGGAGCGGTTTGTAGAAGATGTTTTCCAGCTGGAATAATTTCCAACAACCTCAGA  
GATCTTTTGCTTCAAGGGGCAGAAAGCGTTTTGTAAGCGAAGGAGATGGAGTCTGCTTAAACCGAGAGAGCTAC  
TGAATATAAGAAGTCTCTGAGTCTTAGATGTTATAAAAAATATATCTGAATTGTAAGAGTGTGTTAGCACAAAGTT  
TTTTTTTTTTTTTTTTTAAGCACTTGTGTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG  
GAATTTTTTAAGGAAATGTTTTTCTTTTTTTTTTTGTTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT  
TCTTAAGTGAATATTTCTAATAAGCTACCTTTTGAAGTGCCATGTTTATTATCTAATCATTTCCAAGTTTTGTCAT  
TGAATGCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTGTTTTGTAGTAAAATCACTGGTTTTATACAAAGCTTT  
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA  
AAAAGAAAGTTATTTCTTTGCTTAAAGAAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC  
ATACTGATTGGTCTTAAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTTCTACAAAAGTGGAA  
AAATGAACCTGGTTCTAGAAGATGTACACCAAAATAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

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**FIGURE 246**

MDVENEQILNVNPA DPNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGD  
SVSDSGSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVGWTPGQYVDVEEVDVKDPNYDDQENC  
VYETVVLPLDERAFEKTLTPIIQEYFEHGD TNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSD  
LCGTVMSTTDVEKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDS YKGTVD CVQARAALDKATV  
LLSMSKGGKRKDSVWGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPFHHEL VYEA IIMVLEST  
GESTFKMILDLLKSLWKSSITITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCP SR  
GRKRFVSEGDGGR LKPESY

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**FIGURE 247**

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTTACTGGGTAGAAGAAAAACAAAAACAAC  
AGAGCGAAGAGGGCCAGAGACTCTCCGAGCGCGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA  
ACCTGGGCGAGCAGCGCGGGGGGCCGAGGGATTCTGAAGGAAGATTTCATTAGGTAAATTGTTTAAATCAGTGC  
AAGCGAAATTAAGGGAATGGATGTAGAAAATGAGCAGATACTGAATGTAAACCCCTGCAGATCCTGATACTTA  
AGTGACTCTCTCTTTCCGGTGATGAAGAAAATGCTGGGACTGAGGAAATAAAGAAATGAAATAAATGGAAATTGG  
ATTTACAGTCTCTCCATTAAACGAAGCTAGAAATTAATGCCAAGGCCAAAAGGGCGCATAGGAAAAAATCATCCCCG  
GACTCTGGCAGAGGGCGATTCCGGTCAGGCAGTGGGAGTGACGCCCTTAGAAGTGGATTAACTGTGCCAACCCAGT  
CCAAAGGGAAGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA  
GGCAAAGGTGCTCGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT  
GATGACCAAGGAGAACGTGTTTTATGAAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTGTAGAAGACTTTAACA  
CCAATCATACAGGAATATTTTGAGCATGGAGATACTAATGAAGTTCGCGAAATGTAAAGAGATTTAAATCTTGGT  
GAAATGAAAAGTGGAGTACCAGTGTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGCTATAGAGAGATGACA  
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAACCTGATGTGAAAAATCAITTTGATAAATTTGTTG  
AAAGATCTACCTGAATTAGCACTGGATACCTCTAGAGCACCACAGTTGGTGGGCCAGTTTTATTGCTAGAGCTGTT  
GGAGATGGAATTTATGTAATACCTATATTGATAGTTACAAGGAACTGTAGATTGTGTGCAGGCTAGAGCTGCT  
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT  
GGGCAGCAATCTGTCAATCACCTTGTAAAGAGATTGATATGCTGCTGAAAGAAATATTACTCTCTGGAGACATA  
TCTGAAGCTGAACATTGCCTTAAGGAACCTGGAAGTACCTCATTTTCACCATGAGCTTGTATGAAGCTATTATA  
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAGTCCCTTTGGAAGCTCTTCT  
ACCATTACTGTAGACCAATGAAAGAGGTTATGAGAGAATTTACAATGAAATCCCGGACATTAATCTGGATGTC  
CCACATTACATCTGTGCTGGAGCGGTTTTGTAGAAGAAATGTTTTCAAGGCTGGAATAATTTCAAACAACCTCAGA  
GATCTTTTGTCTTCAAGGGGCAGAAAGCGTTTTTGAAGCGAAGGAGATGGAGGTCGCTCTTAACCAGAGAGCTAC  
TGAATATAAGAACTCTTGCACTCTTAGATGTATAAAAATATATATCTGAATTTGAAGAGTTTGTAGCACAAAGT  
TTTTTTTTTTTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTCTGACATTTTATAAACCTACATTTAAGGG  
GAATTTTTAAAGGAAATGTTTTTCTTTTTTTTTTGTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAGTAACCTCT  
TCTTAAGTGAATATTCTAATAAGCTACCTTTTGAAGTGCCATGTTTATTATCTAATCAITTCAGTTTTGCAT  
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTT  
ATTTAGGGGGTAAAGTTAAGCTGCTAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA  
AAAAGAAAGTTATTCTTTGCTCTAAAGAAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC  
ATACGTATTGGTCTTAAAGACTAGACAGTTAAGTAAAGGTGGCTGGAACATCTATTTTCTACAAAACCTGGAA  
AAATGAACCTGGTTCTAGAAGAAATGTACACCAAAATAAACATGTGAAGCAGTAAAAAATAAAAAA

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**FIGURE 248**

MTKYPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGDSVSDSGSDALR  
SGLTVPTSPKGRLLDRRSRSKGGRGLPKKGGAGGKGVWGTPGQVYDVEVDVKDPNYDDDDQENCVYETVVLPLOE  
RAFEKTLTPIIQEYFEHGDITNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSDLCGTVMSTTDV  
EKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDCVQARAALDKATVLLSMKGGKRRK  
DSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVEYEAIIIMVLESTGESTFKMILDL  
LKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCPSRGRKRFVSEGDG  
GRLKPESY

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**FIGURE 249**

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTCTGTTCCTTTTTTTTTTTTTTTAACTT  
CCTGCCATACACACGCAGCCATCAGCCCAAAAGAC**ATG**ACTACCAACGCGGGCCCCCTTGCACCCATACTGGCCT  
CAGCACCTAAGACTGGACAACCTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC  
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTGTCAGGTCGTGCTGCGGTTGTCCATTGGGGACTTGGCGGCGA  
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTCAATCACCIGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA  
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAAGATATGCCAAGGGAGACAGCCGATACATCCTG  
GGTGACAACCTTCACAGTGTGCATGGAACCATCACAGCTTGCCGTGTGGGGACCACTCAGCCTGTGGGTGGTGATC  
GCCTTTCTCGGCCAGCATCCCTCCGCTTCATTCTACAGCTTGTTGGTCTCTGTGGGCCAGATCTATGGGGATGTG  
CTCTACTTCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCTCTCTACTTCTGGTTTTAC  
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTCCTTGATGCTGTGAAGCACCTCACTCAT  
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACT**TGA**AGAGTGGTGGACCAGGCTCGA  
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGCTAGTCCTGTCTCCACAGTTTGGAGGGACAAAGCTA  
ATTGATCTGTCACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG  
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAATCAGGAAATAAAG  
ATCTTGACTCTAAAAAAAAAAAA

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**FIGURE 250**

MTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI  
HLVIEGWFLVLYYEDLLGDQAFSLQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AFLRQHPLRFIL  
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA  
KSKKN

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**FIGURE 251A**

GTGGCGGCGGTGGGCTGGTTCCGCGGCGCGGCGTGTGCGCGCGGCGGAGAGGTTGGGCGCGCGGGGACGGGATGAG  
AGCTGGGCGGACCCCTTGCTGGAGAGTACTGGCCTAGCCCTTTCTCCCGCTTCCCCACCTCTTACCCCGAGATT  
ACATTCTTGCTGGTGGTGTCTTAGTTCAGATGAAGGATTTGGGGCAGAGACATTCGCGAGTTCATGAAGGGGCTC  
AACTTCTCGGGTTGTGAACGCTTACCTTGAAACAAGAGAGAGATTCCAACCTCGAGAAAAAGGGCTGAGTTTGA  
TTGAGGCTACCCCGGAGAAATGATAACATTTGTGTCCAGGATTGAGAAATGCCAAAGTTGAAGATTTAAGGAGTT  
TAGCCAACTTTTTTGGATCTTGCACTGAAACTTTTGTCTGGCTGTCAATATTTTGGACAGGTTCTTGCTCTTTA  
TGAAGTGAAGAACTTAAACATTTGTCTTGCAATGGAGTCTGTTCTTTTGTGGCTGCTAGAAATGTTGAAGAAG  
ACTGCAATATTTCCATCCCACTCATGATGGTATCCGGAATAGCTAGCTGTAAATGATCTGCTTTCGCATATAAACCGGA  
TGGAAAAAATAATTTCAGAAAAATTGCACTATGAATTGGAAGCTACTACTGCCTTAAACTTTTTCGACTTATAC  
ATACATTATATCTTTGCATATCTCAGAAAGGAAAGAAATACGTAGCCCTGTATAAATCGAAGAGCTACGTCGAAAG  
CTTGCAACTCGCCACTCATCTTTTCAAAGCAAAACCATCTGTAATAGCCTTGTGCCTTCTCAATTTGGAAGTGG  
AAACTTTGAAATCTGTTGAATTACTTGGAAATTTCTTGTCTAGTTAAAAAACATTCCAAGATTATGACACTGAGT  
TCTTCTACTGAGAGAGAGTTGGTTTCTAAATGCCGCGGAGTATCTTCTCTGTAAGTTGTGCAACACGCTGTA  
AGGATTGGTTTGGATCGTTTCAAGGCGCACACCCAGAACCTCCACACAGCTATGATAGTGTCTTGAGCTGTC  
CAACGATACCTGAGGGGGGTTGTTTGTATGAAAGTGAAGTAGGACTCTTGTGAAGATATGAGTTGTGGAGAGG  
AGAGTCTCAGAGCTCTCTCCCGATGATCAAGAGTGACCTCTTTTTCACCTTCAAAGTGGCCACACACTGTG  
GCTTTCATCTTGAAGAACTGATGTTCTGTGCAAAATTTATATTACAGTTTCAAAGACATAAATGGGGAATA  
GGTAGGTTCTGCTGTTTATGCCCATCTAGTCAGGAATAATATACCTGGAATACCTACCTTCTATTGTTATTCAG  
ATCAGATCTGGCCTATTTCATATTATCTTAAGCCATAAAATGGGATGCTCTTAAACCATTAACAGTACT  
TTAGACATTGGCACTTTATTTTCTCGTAGATCTTTAGCTACTTTGGGGAGAGGGAAGGTGCTGATACCTTCAA  
TTTGTACTTTTCAAGATTTTAAAAATAACTAGTGTAGCTTTATTTAAACATTTTATAAAACCTTCAGATGTCT  
TTAAGCAGATTGGAAGATGCAAGTGCTTCTTACGAGGCGAGCTGGATATCTTAAATGGTTTATCATAGATT  
CACCTCCGCCCTTCTCAGAAAGGTGAGTATGCTCTTAAATGTCAAACACATTTTGTGTTTGTGTTTAAAT  
GATCAGATCTGATTGATGATGATGACATCTATAAAATTTGGGAATATAAATGATACATTCTGATGTTTAT  
TATGTAATGCTCTTAATGAGATTTCTGTTAAGGCAGAAATAATTAGGCTAGGGCTCTAGTTTTCATCTCTAT  
GCCCAAGTATTGTCAAACATGGGTATTATTTTAAATGTTACTTTAAAAATCCATAATCTGCTAGTTTTCATGTAC  
TTTATGAAACACAGGTCGAGTAAGTTGAAACTCAGTATCTATGGAATGATAAAATGTGATCTGGTGTAGTATAT  
TTATCGCACTTTCTTATATAAAAGTCTGCGATGATACATTTTATTCCTTGTGAATTACATTTACAGAA  
AGTGATTGCTATATGGGTGCCAAGATTGAATATGAAGAACCCGAGTGTGTTAGTATTATAGTTTAAAGCAAA  
CTGTGTGGTGATACAGCCGATAAAGATGGGGCTATATAAAGCTGTGACATGAAGATTTGTGACAGAAATTTT  
ACCTTTGATAATGTATATGAACATGTAAATCTTTAAATGTACATAAAATACGTATTTTTCACATGTTTGT  
TGATAGCTTAGTCATTGCAATGCAATATAATTTATTTATGTAATCTGATATAAATCATATATGATGACTTAA  
TTTTTCTGGTAAGTCACACATCCGTTGGATGTTTCTGGAAGTGGCTCTTTTGAAGTGACATATGATGTATCT  
AAAAATAAATTTAATGAATTCCTTGTGTTGGGATCACATCTAAATTTTAATCTGTTAAAGGTTCTGTAGT  
ATTTAATGAGAAGCACTTTAGGTGAGGCTCAGTGATTCCAGAGTGAGCCTTCTAAGCTGGCTAGCAGAAGTCTC  
TAGGTTTGGCATCTGTGCTTGGAGATCTGAAGAGAAATCTGTCAATTGACAATGACCTCTTTGTGGGATGGA  
CTCATTAAATGATCTCTCAGAGATGGTATATACCAAGATGCCATTAATTTTCAGTAGAGGACCAAGGATTA  
AAGTAGAACAGAAATGCTCAGGTTGGCAGATTAGAACGATCTTTACAGGACACAAAGCAAGTTTAATCAGTGTGTT  
GTTTAATAAGTATGGGGTGTCTGCTGTATGAGAGGCCCGCCAGCTTCTGGCTCTGTGACCTCAAAGATACAG  
GGTTTCTTGAAGTGGTGGTCTTTCCCTCGCCACCCCAATAGGTTCCCACTGTCTAGTTTGTATTTTGTGA  
GACCTTGTGTTTCTGAGTTAGAAATAACGGTACATCAATGATGTTTTCATGACACCTCTCTCTGGAGATA  
GGGGTATGTTTCTCTACCTCTCTAGTGGAGAACTCTACTGAGGATGACCTTCTCTCTCTCTATAAATAATTA  
GTAAATAGTGGGCAATATTCTGCTTTCAGATTTTGATTGTTGAGATGTAAAGTTGTTTGGGGCTTACCAA  
TCTCAAGACTCTCTTGTAGCTCTCGAGGATGTATGCTGTTTCTCTGATGGAATTTTCTCTGGGTAAAGCATTT  
GTGGCTCATCTCTCTCCCTCGGGTTTTCAGTGATTTAGTGCAGACCTCTCTGCTAGGCTTGAACCTGTGTTA  
TTCACATGGCTGCCATGCCATTTGAGGTTTCTGATTACTCCCAAACCTGCTGGTCTTTATGCTTTCTCAGC  
GAATAAATCCATCTGTTTATCTTGGAACTTAGGTGATGTCATCTCTTTTGGCTGTTTATGGAGGTCACCA  
GGCTCATCATCTGATGATGTTTGTGTACACTGTTATATCTCTCTGCCCCCTTTTCTGCGATGGGATGCA  
TTCACATGGCTGCCATGCCATTTGAGGTTTCTGATTACTCCCAAACCTGCTGGTCTTTATGCTTTCTCAGC  
GAATAAATCCATCTGTTTATCTTGGAACTTAGGTGATGTCATCTCTTTTGGCTGTTTATGGAGGTCACCA  
GGCTCATCATCTGATGATGTTTGTGTACACTGTTATATCTCTCTGCCCCCTTTTCTGCGATGGGATGCA

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**FIGURE 251B**

TTAGACCTGTACTCTTTATCAGCAGAGGTACTGTAATATATTTGTGATCCCTCAGCTTCCAGGCTTACTCCTGGT  
CTCTGCCTTCCATCTACATATCCTTTTAAAAATAAAATTTTAACTATCTCCTGAAAAATTGTTGAGTAGGTCACG  
CACAATCAGGAGAAAAATCTATTTCATGACATACAAGTCTCTGTCTAATCTGAACACTGCACCTGTCTCTGGCCTT  
TTTTTCTTGTCATTTCCCTAGACCTTAAAAATGTGTATTGAGAAAGAACTCTGTTAGCTATACAGAAGATGAAC  
GGGCAATATAGAGTAGCAGCATGGAGACCAGTCTGACTGAACTAAGGCAGTGGAAAGTGTGGATGAGGAAGAGAGG  
TGAAAAATTGAGAAGCGCTATCCTTTCTTTGGGCATTATTAGGAGGCTCACAGACAAGTCCAGGAGTCTGGTTA  
TACCCCTCTGTGCCATTCAACAGGTGGCTTTCCCATGACTGTGATGAATAAAATTGAGAAGCCCTGCCCTTTT  
CAGAGCAGAGGGTGAGGAGAAAGCTACCATTTTTGTCTCATCCTTACCCCGTTGACTTGGCGAGAGATTTGACC  
TTTCAGGTTTTGATCCTGTCTATTTCTAGGATGTGGTGCACGCACCTTTGCTGTTGCGCATGGTGAAGTATTGTGC  
CTAGGTCCTGGGCTTTCATCTGTTTGGCTCTGCTACTGTTTCTCTCCAGGAAGTGTGGTTAGACAAATAATG  
TGTTTTAATTACCTGTCACACTCAGGATTAATACATACTCAGGTTAACTGTAGAGAGGCATTGGCTTCAGAACAC  
TCCTCGTGACAATTTTAAACCATTTTCTTTGTCTAGAGTCTGCCCTTTTCTTTTTTACAATTTCTTTTATTTCAC  
ACTAGGTTTTCAATATGGTGTTTCTGTCTACCTCCCACCTCCCTCCTCCCTCATCACACATGCAAATTGTCAGCTTA  
TTGAGACAACCCACTTAGATTATATATGGACAAGGACAAGGTATTTTGCATTTGTTACTGGAATTACAGTTTTC  
TAACTATTTACTACCAGAAATGGTCAATAAATTACTTTTGTGGTTAGCAAAATCAAATTTGTGTATAGATAGTTTCC  
CAGTATGATGGCCAGTCAGTCTTTCCATCCCTGTGCCTACATGCTGCTCTTCCCGTCCACAAGTGGAGTCTGTTT  
CTCTTGAGTTTTGGCTGGCCTTATGAATGGCTTTGCTTACTGAAGTGCAGCAGAAAGAAATTTAGTATATGTCCAA  
GCCTAGGCTTTAAGAGACTGGCAGCTTTCCTTTTATCCTTTTTTGAAGCTAGCCACCATGCTGCAAAAGAAGCTCA  
GCTGGATTACTGAAAGATGAGAGGCCATGTGGAGAGAGACTTTGAGGATGAGAGATTATCTTGGATGTTCCAGC  
CTTAAAGCTCCAGCTGAATGTGGGTGTATCCTCAGCTACACCACAGAAAACAGAGGAAGTACTCAGTCGATCCCA  
ATCAACCCACAGACTCACTAGAAATAACAAATATTGTTTAAAGCCACGAGGTTTTGGGGGAGGGTTGTTAAACA  
GTAATAGATAAGTGAGACAGATTGCTTGTATTATTTATGGTCAAAATGGTGATTATCTCTGGTGAGATTACAGGTGAT  
GTTTTTTTTAAGTTATGCCATCTGTAGTTTCCCTTTTTTCCCTAAAATTGATTGAATTATTAGTGTATTAACAG  
ATAAAGAATGAACITTTAAACACACACGCTGGTTATATGCTTCTCTAATTAAATTCATGGCTCTCACCAC



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**FIGURE 252**

CGGGLVFRGRRCAAEGGRAGSGMELGRPLLEVLASALSPAPPLPPDYILCVVSLQMKDLGAEHLAGHEGVQ  
LLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCSTETFLAVNILDRLALM  
KVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKMEKIISEKLHYELEATTALNFLHLYH  
TIIILCHTSERKEILSLDKLEAQLKACNCRILFSKAKPSVLALCLLNLEVETLKSVELLEILLVKKHHSKINDTEF  
FYWRELVSKCLAEYSSPECKPDLKKLVIVSRRTAQNLHNSYYSVPELPTIPEGGCFDESEDESDMSGEE  
SLSSSPPSDQECTFFNFKVAQTLCFPS

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**FIGURE 253**

CCGGTCGGATCGCCGACCGGGGACCAGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGGAAGCCCCGG  
CTGCGCCCACTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACATGAAGGATTTGGGG  
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTTCTCGGGTTGTTGAACGTCACCTGGAACAAGAGAGAGA  
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG  
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTAGCCAACTTTTTGGATCTTGCACTGAAACCTTTGTCTCTGGGT  
GTCAATATTTTGGACAGGTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCAATTGGAGTCTGTTCT  
TTTTTGCTGGCTGTAGAAATAGTTGAAGAAGACTGCAATATTCATCCACTCATGATGTGATCCGGATTAGTCAG  
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAATAATTTCAGAAAAATTCACATGTAATTGGAAGCT  
ACTACTGCCTTAAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAACTG  
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTTCAAAGCAAAACCATCTGTA  
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAACTTTGAAATCTGTTGAATTACTGGAAATCTCTTGCTAGTT  
AAAAACATTCCAAGATTAATGACACTGAGTCTTCTACTGGAGAGAGTTGGTTTCAAATGCCTAGCCGAGTAT  
TCTTCTCCTGAATGTTGCAAACAGACTCTTAAGAAGTTGGTTGGATCGTTCAAGGCGCACAGCCAGAACCTC  
CACACAGCTACTATAGTGTCTCTGAGCTGCCAACGATACCTGAGGGGGTGTGTTTGTATGAAAGTGAAAGTGAG  
GACTCTTGTGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCACTGATCAAGAGTGACCTTC  
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCTTAGAAATCTGATTGTTCTGTGAGAAATTTATATT  
TACAGGGTTTCAAAGCAATAAATGGGGAAATAGGTAGTTTCTGGTTTACGCCCCACTCTAGTCAGGAATTAATAT  
ACTGGAATACCTACCTTCTATTGTTATTACAGATCAGATCTGGCCTATTTTCATATTTATCTTAAGCCATCAAT  
GGGGTAGTGCTCTTAAACCATTAACAGTACTTTAGACATTGGCACTTTATTTTTCTCGTAGACTTTTAGCTACT  
TTGGGGAGGAGGAAGGTGCTGATACCTTCAATTTGTACTTTTCAAGATTTTTAAAAATAACTAGTGTAGCTTA  
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCTTAGCAGGGACA  
GTGGATAATCCTTAATGGTTTATCATAGATTTACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT  
CAAACACATTTTTGTGTTTTGTTTTTAAATGATCAGTGCTTATTGATGTGATGCAGATCTTATAAATTTGGG  
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGCTTAATTGAGATTTGTGTAAAGGCAGAAATAA  
TTAGGCTAGGGCTCTTAGTTTTTCACTTCTATTGCCCCAAGTATTGCAAACTATGGTATTATTTTAATGTTACTT  
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTCAGTAAGTTGAAAACCTCAGTATCTAT  
GGAATTGATAAATGTTGATCTGGTGTAGTATATTTTATCCGCATTTTCTATATTAATAAATATGTTCTGCATGATT  
ACATTTTATTTGCTTTGT

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**FIGURE 254**

MKDLGAEHLAGHEGVQLLGLLVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE  
TFVLAVNILDRLFALMKVKPKHLSCIGVCSFLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMKIISEKLH  
YELEATTALNFLHLYHTIILCHTSERKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE  
ILLLVKKHISKINDTEFFYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD  
ESESEDCEDMSCGEESLSSPPSDQECTFFNFKVAQTLCFPS

## FIGURE 255

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCGGGCCGCAGCCATGAACTCCAACGTGG  
AGAACCTACCCCCGCACATCATCCGCTGGTGTACAAGGAGGTGACGACACTGACCCGAGACCCACCCGATGGCA  
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG  
CTGGAGGTCTGTTCCGCATGAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCTGTA  
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG  
AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCTGCTGATCCACCCCTAACCCCGAGTCTGCACTCAACG  
AGGAGGCGGGCGGCTGCTCTTGGAGAATACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG  
GGGCGCGGGCGGGCCAGCGGCAGGGCCGAAGCCGGTCGGGCCCTGGCCAGTGGCACTGAAGCTTCTCCACCG  
ACCCTGGGGCCCCAGGGGGCCCGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGGATAAGA  
AGCTGGCGGCCAAGAAAAGACGGACAAGAAGCGGGCGCTGCGGGCGCTGCGGCGGCTGAGTGGGCTCTCTCC  
TCCTTCCACCGTGACCCCAACCTCTCTGTCTCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATATGGCTGG  
GGTCGGGAGGGTACAGGGGGCACTGGGACCTGGATTGTITTTCTAAATAAAGTTGGAAGCA

**FIGURE 256**

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVFPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP  
KGYFLT KIFHPNVGANGEICVNVLKRDWTAELGIRHVLLTIKLLIHPNFEALNEEAGRLLLENYEEYAARARL  
LTEIHGGAGGPSGRAEAGRALASGTEASSTDPGAPGGPGAEGPMAKKHAGERDKKLAAKKKTDKKRALRALRRL

ATTACGCCGCTGCGCGCGCGCGGGAGGCAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCGAGAGCGGTGCC  
CGACCGCCAGCTCAGAAACAGGGGACGCCGTGTAGCCGAACGGAAAGCTGGGAGCAGCCGGGACTGGTGGCCCGCG  
CCCGAGCTCCGACAGCGGGGAAGACCTGGATTTGGGAAGTCCCGGGAGCAGCGCGCGCGGACCTCCCTCACCCA  
AGGGCCCGCGCGCAGCGTTCACGGCGCGCGGCCACCCTGAGCGACCCAGGCCAGGATTTAAATAGACGGCCCA  
GGCTCTCTCTCGCCCGCGGCTCAGCTCGGGCATTGCCGCGCGCTCCCGCGGTGTACAGCGGCACTGGG  
CCGCCTTGTCTCGCGGGTCTCGGCCCTCGCCACCCTCAGTGCGCCAGGCCCAGCGAGCTCAGCTTGCTGGCG  
GGGCTCGCGAAGCCTGCGTGAGCCGAGGCGTTGAGCGCGCGGCCACGCCACTGTCCCGAGAGGACCGAGGTGG  
AGCGGCGCGCGCTCGCGGAACCGCGCGCGCGCGCGCGCAGTGGTCCAGGCTACACCGGGTTCCGGGACCCGG  
CCGCGAGTCCCGGGGAGTAGCGCGCGCGCTCGGCTGGGCACCATGAACAGCAGCAGCGCCAACTACCTACGC  
CAGTCCGAAGCGCGGAAGCCGTGCAGAAAACAGTAAAGCAATCCCAAGCTGAAGGAATCAAGTCAATCTCTC  
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCCTGCTGCCTTTCCCACAAGATGTTAT  
TAATAAGTTGGACAACTTTCACTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC  
ATTAATACTCTCCCTTACTGAAAGAACGGAGGCCAGGATAACTGTAGAGCAGCAAAATTTTCAGAGAAGGCGTGAA  
CTTACAAGAAGGAGAATCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACTACAGATGCTTTGTGCTTT  
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCTATACATCAGAGTGTATATGAAT  
TATCATACCCGAAGACCGAGCTGAATTTACGCGTCAGCTACCTGGGCATTAATCTTCTCAGTGATACAGATC  
TGGACAAGGAATTTGAAGAAGCCACTGGTCTCCCCAGACAGTAGTCTGTTATAACCCAGACAGATTCCTCCAGA  
AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGCTAAGGTGCTGCTGGATAATTCATCTGGTTTTCTGGC  
AATGAATTTCCAAAGGAAGTTAAAGTATCTTCATGGACGAAAAGGAAGGAAAGTGGATGATCAATCTTCCACC  
TCAGTTGGCTTTGTTTGCATAGCTACTCCACTTCAGCCACCATCCATACTTTGAATCCCGGACCAAAATTTTAT  
CTTTAGAACCAACCAAACTAGACTTCACACTTATGGTTGTGATGCGAAAGGAAGTTGTTTATAGGATATAC  
TGAAGCAGAGCTGTGACAGAGGCTCAGGTTATCAGTTTATTCTAGCAGCTGATATGCTTTATTGTGCGGAGTC  
CCATATTCCGAATGATTAAAGCTGGAGAAGTGGCATGATAGTTTTCGGGCTCTTCAAAAAACAACCGATGGAC  
TTGGGCTCAGTCTAATGCACGCTGCTTTTAAAAATGGAAGCAGATATATCATTTGTAATCTCAGAGACCAT  
AACAGATGAGGAAGGAACAGAGCATTACGAAAACGAAATACGAAGTTGCCCTTTTATGTTTACCACTGGAGAAGC  
TGTGTTGTATGAGGCAACCAACCTTTTCTGCCATAATGGATCCCTTACCATAAGGACTAAAAATGGCACTAG  
TGGAAAAGACTCTGCTACCACATCCACTTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT  
GCAACAAGATGAGTCTATTATCTCTATCTGCTTCAAGTACTTCAAGTACTGCACTTTTGAAGAACAACTTTTT  
CAACGAATCTATGAATGAATGCGAAGTTGGCAAGATAATACTGCAACCGATGGGAAATGATACTATCTGAAACA  
TGAGCAAAATGACCGCTCAGGATGTGAATCATTTTGCTGGAGGTCACCCAGGCGCTCTTTCAAGATGATAAAAA  
CAGTGACTTGTACAGCATAATGAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAAGTAAAAAT  
TTTCAGAAATGATTTTCTGCTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAATCTCTGACGTATGTCCA  
AGATTTCTTAAGTAAGCTCCCTTACATACCTTCAGATTATCAACGACCAAGCTCTTGGCTCTGAACCTCAAGCTG  
TATGGTACAGGAACCTACATCTAGAAGCAGCAACCAATCACCACCAAAAGCAAGTAGTAGTGGAGGCCACAGA  
ACAGCTGTGTACAGAGATGAAGCAGTACGAAGTTAATGGCATTTGAAGATTGGAACCTTAACCAATCTCGTGGC  
TTTCAATTTGTCACAGCAAGACCCACAACATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC  
CTACAAATCTGAAATGGAATTTATGCTCTTATACAGAACTTTATTTCTCTGTAATCAGCGCTGTATTACCAACA  
TTCCAAATGTACAGAGCTGGAATCCCTATGGGGAGTTTGAACCATCCCACTACCCCACTACTCTTAGTTTGA  
AGATTTTGTCACTTGTTTACAACCTTCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATACTCC  
TCAGACATGTTATGCTGGGCGGTGTCGATGTATCAGTGCCAGCCAGAACCTCAGCAGACCCCAAGCTGGGTGAGT  
CGAGTACAATCAGTACTGCGGACCAAGCAGGCAATTTTAAACAAGTTTCAGAAATGGAGTTTAAATGAACATA  
TCCAGCTGAATTAATAACATAAATAACACTCAGACTACCAACATCTTCAGGCATCTCATCATCCGTGAGAAGC  
CAGACCTTTTCTGATTTGACATCCAGTGGATTCTCTGTAATCCCAAGCCCAATTTGACCCCTGGTTTTTGATTA  
AATTAGTTTGAAGGATTATGAAAAATAAAACCTGTCACTGTTGGAGCTGCAAGAGTTCACATGAGGACATTGA  
TGATGCTATTCACAAATTTTCAAACCAAAATTTTAATTTTGTCTTTTGAAGAAAGGGAGTTTAAAAATGGTATCA  
AAATTCATATACTACAGTCAAGATAGAAAGGGTGCTGCCACGGAGTGGTGAGGTACCGCTTCAATCTTACATTA  
TTCGGGACCAACAAAAATAACAAACTTTATCAGGGAACATAAGATCTTTTAAATAGAAAAATTTCTCTATT  
TGAATTAATTTCTGTACAGTAAAAATAAAATACTTTGAGTTTGTAGCTACTGGATCTCTTATAGTTTCCCCAAATA

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**FIGURE 257B**

CAAGTTAGAGAACTAAACTAGTTTTTCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAAATAATGGT  
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCTCCTTCACTGTTTCATCTAAGTGCCCTCACATTTTTT  
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTCTTTTTTAAATTAATATCTTTCTGCAC  
ACAAATATTATTGTGTTTCTCTAAATCCAACCAATTTTCATTAAATCAGGCATATTTAACTCCACTGCTTACCT  
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAATAATTATTATTACATAAITTAGTTGTTTCTAGACT  
ATAAATGTTGCTATGTCGCTTATGTTGAAAAAATTTAAAGTAAATGTCCTTCCAAATATTCTTCAATTATTA  
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTCAGAAGAAATAAATATACCACTCTTTACCT  
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA  
AATTGCAAGAAGCTTTATTCTAGCTTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATGTCTTTAAA  
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTGACTTTATAAATTTGCTTCTTAGAACAGTGGAAA  
CTATGTGTTTTTCTCATATTTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT  
GAATTGAATGGTGCAATTGTATAGATATAATGAACAAAATATTGTGAAGATATTTGCAGTTTTTCATTTTAAAA  
GTCCATACCTTATATATGCACTTAAATTTGTTGGGGCTTTACATACTTTATCAATGTGCTTTCTTAAGAAATCAAG  
TAATGAATCCAAGTCTTAAAGTTGGTATTATAAAAAAGACAACCACATAGTTCGTTTACCTTCAAACCTTAGGT  
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCTTACCAACTTTACTGCTCTAACATGG  
ACTTTCAAAAAGAAAAATGACACCATCTTTATTCTTTTTTTTTTTTTTTTTTTTGGAGAGAGAGTCTTACTCTGC  
CGCCCAAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCTCGGTTCAAGTGATTCTCTTG  
CCTCAGCCTCCCGAGTTGCTGGGATTGCGGGCATGGTGGCGTGAGCCTGTAGTCTTAGCTACTCTGGGAGGCTGAG  
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGTTGCGAGGGCCAAGATCGCCCCACTGCATCTCCAGCCTGGCAAT  
AGACCGAGCTCCGCTCCTCAAAAAAATAACAATTTTATTCTTTTACTTTTTTTAGTAAGTTAATGTATATA  
AAAATGGCTTCGGACAAAATATCTCTGAGTTCGTGTATTTTCAGTCAAAACCTTTAAACCTGTAGAATCAATTTA  
AGTGTGAAAAAAATTTGTCTGAAACATTTTCATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG  
GTCTAGATTAACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCAATTTTGTACTCTCT  
TCCACATGTTACTGGATAAATTGTTTAGTGGAAAAATAGGCTTTTAAATCATGAATATGATGACAATCAGTTATAC  
AGTTATAAAATTAAGTTTGAAGCAATATTGTATATTTTATCTATATAAAATACTAAAATGTATCTAAGA  
ATAATAAAATCAGCTTAAACC

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**FIGURE 258**

MNSSSANITYASRKRKPVQKTVKPIPAEGIKSNPSKRHRDLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS  
YLRAKSFDDVALKSSPTERNGGQDNCRAANFREGNLQEGEFLQALNGFVLVVTDDALVFYASSTIQDYLGFPQQ  
SDVIHQSVYELIHTEDRAEFQRLHWA LNPSQCTESGQIEEATGLPQT VVCYNPDQIPPENSPLMERCFCRLR  
CLLDNSSGFLAMNFQGLKYLHGQKKKGKDGSI LPPQLALFAIATPLQPPSILEIRTKNFI FRTKHKLDFTPIGC  
DAKGRIVLGYTEAELCTRGSGYQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWQSNARLLYKNGR  
PDYIIVTQRPLTDEEGTEHLRKRNTKL PFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS  
LNPSSLLAAMMQQDESIYLYPASSTSS TAPFENNEFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG  
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEKFFRNDFS GEVDFRIDL TDEILTYVQDLSKSPFIPSDYQ  
QQQSLALNSSCMVQEHHLHQQQQHHQKQVVVEPQQQLCQKMKHMVQNGMFENWNSNQFVFPNCPQDDPQQYNVF  
TDLHGISQEFPHYKSEMDSMPLYTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCQLPENQKH  
GLNPQSAIITPQTCYAGAVSMYQCQPEPQHTHVGMQYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTT  
HLQPLHHPSEARPPDLTSSGFL



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FIGURE 259

AGCTGGCTGAGAGGGGACTGGGCGCCGGCGGGGAAGGAGGAGCGCTAGGTGCGGTGTACGACCCGAGATTAGGGTGC  
GTGCCAGCTCCGGGAGGCCGCGGTGAGGGGCGGGGCCAAGCTGCCGACCCGAGCCGATCGTCAGGGTGCACCAGC  
GCCTCAGCTCTGTGGAGGAGCAGCAGTAGTCGGAGGGTGCAGGATATTAGAAATGGCTACTCCCCAGTCAATTTT  
CATCTTTGCAATCTGCATTTTAATGATAACAGAATTAACTCTGGCCCTCAAAAGCTACTATGATATCTTAGGTGT  
GCCAAAATCGGCATCAGAGCGCCAAATCAAGAAGCCCTTTCACAAGTTGGCCATGAAGTACCAACCTGACAAAAA  
TAAGAGCCCGGATGCTGAAGCAAAATTCAGAGAGATTGCAGAAAGCATATGAAACACTCTCAGATGCTAATAGACG  
AAAAGAGTATGATACACTTGGACACAGTGCTTTTACTAGTGTGTAAGGACAAAGAGGTAGTGGAAGTCTCTTTGA  
GCAGTCATTTAACTTCAATTTTGATGACTTATTTAAAGACTTTGGCTTTTTTGGTCAAAACCAAAACACTGGATC  
CAAGAAAGCGTTTTGAAAATCATTTCCAGACACGCCAGGATGGTGGTTCAGTAGACAAAGGCATCATTTCCAAGA  
ATTTTCTTTGGAGGTGGATTATTTGATGACATGTTGAAGATATGGAGAAAATGTTTTCTTTTAGTGGTTTTGA  
CTCTACCAATCAGCATACAGTACAGACTGAAAATAGATTTTCATGGATCTAGCAAGCACTGCAGGACTGTCACCTCA  
ACGAAGAGGAAATATGGTTACTACATACACTGACTGTTCCAGGACAGTAGTCTTATTCTATTCTCACTAAATCCA  
ACTGGTTGACTCTCTCCTCAATTATCTTTGATGCTAAACAATTTCTGTGAACATATTTTGACAAGTGATGATTCA  
CTTTAAACAATTTGATATAGCTATTAAATATATTTAAGGGTTTTTTTTTTTGGACAAATTCACATTCAACGAGT  
AGACAAAATGCTAATTTATTTCCCTGATTAGGAAAAGTTTCTTTAAAAACACGTAATTTTGCCCTAGTGCTTTTTCT  
CTACCTGCCCTTTGGGCTCACTAATATCACCAGTATTATTACCAAGAAAATATTGAGTTTACCTGATTAACATTTA  
AAAGTTAATGTAGATTTAAATGTGTGAACCTAATGATTTTTGCAGTGAAACCTTTACTAATTCAAAGTTGCAT  
GTCTATGACATCTGTGACTTGCCTTGCAGAGTGATCATGAACTGTATAATTGAGTCATTTCAGTAAAGGAGAAC  
AGTATCTTGGTTAATTGCTACTGAAAGGTTGAGAAAGGAATGGTTTGATATTTACCAAGCCGCTGTGCCCTTCTA  
CAGTAGAACTGGGGTAAAGGAAATGGTTTTATTGCCCATAGTCATTTAGGCTGGAAAAAGTTGAAAACCTTAACG  
AAAATTTGCCAAGAGATTGTTATGTGTTTGGTTCAGCCTAAAAATGATTTGTAGTGTGAAATCATAGCTACT  
TACATAGCTTTTTCATATTTCTTTCTTAGTTGTGGCACTCTTAGGCTTTAGATGGATTATGTGTTTTGTGTGT  
GTGTAGTTTATCCTCTCTCATCTTTATCTAGAGATTGACTGATACCTCATTCTGTTTGTAACCAAGCCAGTA  
ATTTCTGTGCAACCTTACTATGTGCAATATTTTTAAATCCTGAGAAATGTGTGCTTTTGTTTCCGGATAGACTTA  
TTTTCTTAGTCTGCACTTTTCCACATTATCTCCATATGAGTATTAATCCTATGGATACATATTAACAAAGTG  
TCTCATACAACATTGTATGTGAGAGAAATATAAATATTACAACCTGATATTCGTTGTGTTTTATTGTTAAAG  
TTTATATGCAACTCTGGAGGTATAGAGGCGATATAAGCTATGGGACATATGCTGATCACAGGCTATATTCATGA  
AGTTACTTTTGACCAACCTGAAAACCTGATAGGATTTGTTTGTTCATTGGTAATTTCTACTGCATTTACCATC  
CTTCTCTCAAAATTTGATAGCTTGAAGATCTTTTTTAATTATAATTTTGTGTATTGTTTCCCTAGGAGCAAGT  
GTTCCCTGTGCCAGTTCTTTCTCTTTAGGCGTGGTGGAGAAAAGCAGAAACCTTACATAAAGCTGTATTTCTT  
AATCATCTTAAATTTGAAACTTAAGAAAATGAATTTATCTGTTATATTATGTAACATTATTTCTCGGAAGTTAT  
ATCTACTAGTTTTGTTTGATAATAATAAAATAGCTATACCTTGAA

**FIGURE 260**

MATPQSIFIFAICILMITELILASKSYDILGVPKSASERQIKKAFHKLAMKYHPDKNKSPDAEAKFREIAEAYE  
TLSDANRRKEYDILGHSAFTSGKGQRGSGSSFEQSFNFNFDLFDKDFGFFGQNQNTGSKKRFFENHFQTRQDGGSS  
RQRHHFQEFSGGGGLFDDMFEDMEKMFSGFDSTNQHTVQTENRFHGSSKHCRTVTQRRGNMVTITYDCSGQ

## FIGURE 261

AGGAAATGGTTTCTGGAAAAAGCTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC  
AAATTGGTTATGACCAGAAATGTGATTCATTATACCTAAAGCTAAAGGAATAGATTAAGAAATTAGCAACAGTGGCCG  
GGTGCAGTGGCTCATGCCGTGAACCCACAGCACTTTGGGGGAGGCCAGGTGGGTGGATCATTTAGAGTCCAGGAGT  
TTGAGACCAGCCTGGCCAACATGGTGAACCTAAAAATACAAAAATAGCCAGGTGTGGTGGCAGGTGCTTGTAA  
TCCAGCTGCTTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGAGGAGGGGTTGCAGTGAGCCAAAGATCAC  
ACCATTTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAAATTAAGCAACAGGTGATATGCAATA  
GTTGCAAGATGTAAAGTACCCCAAGAGTATGCAGAGGGAATGAGGGAAGCAAAATATTAATACCCAG  
GGAGTGAACAGGAGGAGGAGCCCAAGAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC  
AATAATGTGAAATACAGAGGGAATTAATGTCTACAGAAATAAACCATGTCTCACATTAAAGCAAAACAGTAGG  
TTGGAGGGATATTTTGAAGGCAAGGTGATATTAACCTTTATTCTGAAAGTAGTTTGTAGAGAAAGAGGCGATGA  
TAAGAGTTGCAGTTAACTGATTGGAACTATGCAGCAGATGAAACTGGAATAAAGGAAACTCATCAGGAAATGAT  
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCCCTGAACATAAAACAAAGAGGATACAAAGGTTCTAGAAAT  
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAACTACCTATGCACCTGGCTCTGAAGATGAAGTG  
CTGAGTAACTTAGACATGGACCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCTATT  
GTAGCAATTTTGTAGATCTTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCTGTGTA  
ATTTACCATGCAGTTAAATAAGAACTAAAGCAAACTAAATACCCCAAAAGGTTAGTAGTCTGTATATG  
CATTAGCCTTAATCTAAGGAAATATTTTATATAGGTCTCCTTGAAGAAATGATATTTTCAGGAATGCTCAAGC  
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAAATATTGTAGGATTTGCCGCAAGGTAT  
TGAAATTAACAACTACGCAACTGCAACACTGAAGGCCAATCAGATTTTTAAACACCCGGTTTGGAGGCTTATTTT  
AGCATCTGGTGTAAATGTGACAACTGAAGATAACAAAATATGAACAACTCAAGATGCCATAGAAAAGGCTGTGTA  
TAGAGGCCAATGTTTATATAAAATATCAAGGTTATACCACTATCCCATGCATGATTTTCTACAGATGTCATACCTTG  
TAACCCACAGATCGAAATGCCATATGTGTGAACCTGATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT  
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATACCAATTAACCTTCCCCCTCACTTTTCTAATATTTG  
GGTTTCATTTTGCTTTAGGTTTTTCTGTGACTGTGGTGTGGAACACTGTCTAATCCTTGTACATTAGCTGGTGA  
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACTATAGAATCTAATACATTGCAGCACAACTGAAT  
TCCTTCCTTAAGAAAAAGTCCTGCCATTGTAACATCATAACTTAAACACTTTTTTGGAAAGAGATTTAAATA  
TTTGCCCATGCTACAGGAAGAGACTGTATTAATAATGGATACACAAGGTCAAGTGCACACTATGAAGCTCAAGCTA  
CCAAAAAGAAAGTGGCAATATATTGACTCAGGATCTCAAAGCTGGGTGTTTGTAGCATTACTGTGTAAAGACTTGA  
AGGGACAGAAGTGAAGAAAAATAGCTGCAATTTTGTACAGATACCAACTCTGAAAGCTGGTGTTTTACAACCT  
AGCATGGAATGCAGTCCAAATTTGCAGTAGTAATCTTCAATAGACAAGCACTGTGTGCTGCCCTTATGGACATG  
GGTACCAATTGCTTTTGAATATGTGAAAAATGTGAGCTAGCACTTCTGCGTTCCCTTTGTATTTTTTTTTTAA  
CATGTATTGAGATTGAGAAATATGATTTTTAATGCCCTTAATCTCATGTAGTTTTTTTAAATTTCAAGCAAAACTC  
TACTGTACTTTGAATGTGCCCTGTTTTTGTGTAGCACACCTAGACTTGTGTAACCTGTACTCATGTCCCAGTATGTAC  
TGCTCTTCTATGAAGAGAGAAACCACTAATCTTAATATATACCAAGATGTTTCTGGTATCCCTTTAAGAAAAAGT  
AAGCATATTATTTCTCCCTTCCCTGTGCAGCACTTCAAAATCACCCCTAGAAAGTGAGTGTTTTAAATGAGA  
CTTCTAGGAAGGGATGCACCTGTAAAAACAAAGTATCTTGTAACTCAGTTTTGTGAAAGGTAAAAACCTACTAT  
GTTTTAAGTACATTTAGAAAGCTCTCTCAAAACAAACAGCTCTGTAATTTGAAGCTCTGTTTCATAGTTTTTTTTT  
AACAGTTTTAGACAAACCTGTGTGAATTAACCAATTTCTGTCAATAGCTGAGCAAGATATATAAACAGCCCTA  
TACAGTTTCATAGCTTTTCTCCCTCATTTATGTGTATTGGTGACAGTGGGTATATAACAGCCTGAAAGTGTATG  
CATGTACCAATACATTTAGACTTAATATATTGTGGAGTATCAATAACCATATGTAGAAGGTAGATAAGAATTA  
AAAGGGTTTTAATTTCTGTAGAAAGAAATGGAAAAATGGTCAATTTTAAAAAATAAGGTTTATTAGATCATAATGT  
TGTCTGAATTTACCACCTTTGTGAGAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTTCTTAACTCAA  
GTCAGCAATTTATGGACAGCTTCAGCATTTACAGTTGACCTTCTACTAGCCAGGCAAACTTCCCTTAAATTTAA  
AA

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**FIGURE 262**

MKDNKIMNNQDAIEKAVSRGQCCLKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDVEFIRHDRVVA  
HLLDILPNYFPPHFSNIWVSFCFRFFCDCGAGTLSNPCTLAGETHDHTDLYDSAPPIESNTLQHN

## FIGURE 263

CGCGCCCCCTCCCTCCTCGCGGACCTGGCGGTGCCGGCGCCGGAGTGGCCCTTTAAAGGCAGCTTATTGTCCGG  
AGGGGGCGGGCGGGGGGCGCCGACCGCGGCTTGAGGCCCGGCCCTCCCTCTCCTCCCTCTGTCCCGCGCTCG  
CTCGCTGGCTAGCTCGCTGGCTCGCTCGCCGTCGCGCGCACGCTCCGCTCCGTACAGTTGGCTCCGCTGTCCGG  
TGCGCGCGCTGGAGCGGCAGCCGGTCTGGACGCGCGGCGGGGCTGGGGGCTGGGAGCGCGCGCGCAAGATCTC  
CCCCGCGAGAGCGGCCCTGCCACCGGGCGAGGCTTGCGCCGCGATGCGCAGAGATGGGCAGTAAAGGGGTGACG  
GCGGGAAAGATCGCCAGCAACGTGCGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAG  
GCAGATGAGACCAAGGATGAGCAGTTTGTAGCAGTGCCTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGG  
CTGCAGAAGGATCTCCGGACCTACCTGGCCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGT  
CTGCAGGAGGTGTATGAGCCCGATTGGCCCGCAGGGATGAGGCAACAGATCGCAGAGAACACGACCTGCTG  
TGGATGGATTACCAACAGAAAGCTGGTGGACCAGGCGCTGCTGACCATGGACAGTACCTGGGCCAGTCCCCGAC  
ATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTT  
CAAATGCCAAAAAGAGGATGAAGCCAAATTTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCAGAAAGGTGTTT  
GAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACG  
TTCCAGAGCATCGCGGCCCTGGAGGAAACCTTCCACAAGGAGATGAGCAAGCTCAACCAAGAACCTCAATGATGTG  
CTGGTCCGCCCTGGAGAAGCAACACGGGAGCAACACCTTACCGGTCAAGGCCAGCCAGAAAGAAAGTAAACTG  
TTTTGCGGGCTGCGCAGAAAGAAACAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCCTCCAGAT  
GGCTCCCTGCCGCCACCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCC  
ACCTCCCCAAGTCCCATCTCAGCCAGCAGAGGCTCGGAGGTGGCGGGTGGGACCAACTGCGGCTGGAGCC  
CAGGAGCCAGGGGAGAGCGGGCAAGTGAAGCAGCTCCAGCTCTCTTCTGTCTGTGTTGGTGAGACCTTCCCA  
GCAACTGTGAATGGCACCGTGGAGGGCGGCAGTGGGGCGGGCGCTTGGACCTGCCCCAGGTTTCATGTTCAAG  
GTACAGGCCAGCAGCACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGCTGGTG  
ATCCCTTCCAGAACCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACACGAC  
AAGGAGCTGGAGAAGTGCCGTGGCGTCTTCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCAGGC  
AGCCTCCGGGCGTGTGAAGAACACCTCTCCCGAAAAATGTGTGTTCTTTTTTTGTTTGTGTTTTCGTTTTCA  
TCTTTTGAAGAGCAAGGGAAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAGATTAGGTCGTTTT  
CCAAAGAGCCGCGTCCCGGCAAGTCCGGCGGAATTCACCAAGTGTCTCTGAAGCTGCTGTGTCTCTAGTTGAGTT  
TCTGGCGCCCTGCTGTGCCCCGATGTGTGCTGGCCGACGGCGGGGCTGGGGGCTGCCAGGCCACCATGCTT  
GCCTGAAGCTTCGGCCGCGCCACCCGGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACAC  
CAGCCTAGCCTGGCTCTGCCCCGACAGGCTGTGTGCTGTTTGAATAAATCTTAGTGTTCAAAACAAATG  
AAACAAAAAAAATGATAAAAACTCTCAAAAAA

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**FIGURE 264**

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGKADETKDEQFEQCVQNFNKQLTEGTRLQKDLRITYLASVKAM  
HEASKKLNELQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLV  
DSARHHYESLQTAKKKDEAKIAKAEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM  
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPPDGSPAATPEIRVNHPEPEAGGATPGATLPKS  
PSQSSLPVAVVETFPATVNGTVEGGSGAGRLDLPFGFMFKVQAQHDYTATDTDELQKAGDVVLVIPFQNP  
EEQDEGWLGMVKESDWNQHKLEKCRGVFPENFTEVP

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FIGURE 265A

AGATTTGATAATCGGGCTGCATTA AAAAGTAAGAAAAACAAAGTCCAGCCATTAAATACAGACCTGAAAAATCTCC  
 AGAGCCTGTCACTACAAGTGTGAGCCATTATGGAGCAGAAACCACTACAGTGTCAACATGTCCGTATCTTCAGC  
 AAAGGGAAACAGCAGTTAATTTTCAGCAGTCTTTCCATGACACCAATTGGAGGATCCTCAGGGGTAAAGCCCTTTTGG  
 AGGTGCATCTTCTCATTTTCAGTGGTGCCAAAGTTCATATCTCTGTGGTTTAACAGTGGTGTACTATATTTTGT  
 GGCCTTATATGATTATGAAGCTAGAACCTACAGAAACCTTTTCATTTAAAGAAAGGGTGAAGATTTTCAAATAATTAA  
 CAATACGGAAGAGATTGGTGGGAGCAAGATCAATCGCTACAGGAAGAAATGGTTATATCCCGACAATTTATGT  
 AGCGCTGCAGATTCATTCAGGAGCAAGAATGGTATTTTGGCAAATGGGGAAGAAAGCTGAGAACCTACTACT  
 TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAACAACTAAAGGTGCTTATTCCTTTC  
 TATTCGTGATTGGGATGAGATAAGGGGTGACAAATGTGAAACACTACAAATATTAGGAACTTGACAAATGGTGGA  
 CTATATCACAAACGAGACAGATTTGATACTCTGCAGAAATTTGGTGAACACTACACAGAACATGCTGATGGTTT  
 ATGCCACAAGTTGACAACCTGTGTGTCCAACTGTGAAACCTCAGACTCAAGGCTAGCAAAAGATGCTTGGGAAAT  
 CCCTCGAGAATCTTTGCGACTAGAGGTTAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA  
 TGGAAACCAAGAAAGTCAATCAAACTACAAACCAAGGTACAAATGATGCCAGAAGCTTTCCCTCAAGAAGCTCA  
 GATAATGAAAAAATTAAACATGATAAACTTGTTCACATATAGCTGTGTTTCTGAAGAACCAATTTACATTGT  
 CACTGAATTTATGTCAAAAGGAAGCTTATTAGATTTCCTTAAAGGAAGGAGATGGAAAGTATTGGAAGCTTCCACA  
 GCTGGTTGATATGGCTGCATGATTCGCTGATGGTATGGCATAATTGAAAGATGAACATATATTACCCAGAGATCT  
 TCGGGCTGCTAATATCTTGTAGGAGAAAACTTGTGTGCAAAATAGCAGACTTTGGTTTAGCAAGGTTAATTGA  
 AGACAATGAATACACAGCAAGACAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCATGTATGG  
 TCGGTTTCAATAAAGCTGATGCTGTGCTTGTGAAATCTGCAACAGAGACTAGTAACAAAGGCCGAGTGGCC  
 ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAAGTGGAGCGAGGATACAGATGCCGTGCCCTCAGGGCTG  
 TCCAGAAATCCCTCCATGAATTGATGAATCTGTGTTGGGAAGAGGACCCCTGATGAAAAGACCAACATTTGAATAT  
 TCAGTCCCTCTTGGGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAAATTTAATAATCAAGTA  
 GCCTATTTTATATGACAAAACTCGCCAAAAATAAAGAACTTGTGTAGATTTTTCACAGGAATCAAAAGAGAAA  
 ATCTTCTTTACTCTGCATGCTGTTTTAATGGTAACTGGAATCCAGATATGGTTGCAACAAAAACCACTTTTTTTCC  
 CCAAGTATTAACCTCTAATGTACCAATGATGAATTTATCAGCGTATTTTCAGGGTCCAAACAAAATAGAGCTAAGA  
 TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCCTT  
 TCTTTTTTCCCAAAGTCAGAATTGCTCAAAAGAAAATTAATTATGTTACAGATAAAACTTGAGAGATAAAAAG  
 CTATACCATATAAAAAATCAAAATTAAGGAATATCATGGGACCAAAATATCCATCCAGTTTTTTAAAGTTTCT  
 TGCATTTATTATTTCTCAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATAGCTTTTCTTTGCA  
 TGGACATGGGCCAGGTTTTTCAAAGGAATAAAGACAGGATCTCAAATTTGATTAAGTTAGACCAAGAGTG  
 GAATTTGAAAGTATAATGCAGTACATAATATTATGTTTCAAGTGAAGTGAAGAAATAAGAAATTTTCACTTCAG  
 TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAACTAGAAAGTGAATTAATCTTGATGAGGTGCAATG  
 ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA  
 AAGTAAGACCCAGCATTTTTAAAGCCCTTTTTTAAAACTAGACTTCGTACTGTGAGTATGCTTATATGTGCTCTTA  
 TGGGATGGGTGCGCAAAATAGAAAAATGACCAGATCAGGAGCTTGAATGCACTTTTGTCTCATGGTGAATATAG  
 ATGAACAGAGAGGAAAAATGTATTTAAAGAAATACGAGAAAGAAAAATGTGAAGTTTTACAAGTTAGAGGGATG  
 GAAAGGTATGTTTATGTTGATGTCATGGAGTGACAGAAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA  
 TATTCGAGACTTTGAAGAGTTAAAGATATAAACTATAAACTAATTTTTCTACACATAAATGGGATTTTGTGTT  
 CAAAAATAAGAGTTATGGCTTCACATTCATTGCAAGTGGGATATGGTTTTATGTAAACATTTTGAAGACTCCA  
 GTTTTCAAATCATGTTTGAATCTACATTCACTTTTTTTTTGTGTTTTTGTAGACGGAGTCTCGCTCTGCCGCC  
 CAGGCTGGAGTCAGTGGCGGAGTCTCGGCTCACTGCAAGCTCTGCCCTCCAGTTTACACCAATCTCTCGCTCT  
 AGCCTCCCGAGTAGCTGGGACTACAGGTGCCACCACCAGCCTGGCTAGTTTTTTGATTTTTAGTAGAGACGC  
 AGTTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCGCCCTCGGCTCCCAAGTGCT  
 GGGATACAGGCTGAGGCCACCGGCCAGGCTACATTCACCTTAAAGCTATGATGAATGGTGGTCAATTTTTTCT  
 CTTTGAAGATACATTAATGGTTGATTGGGGAGGAAACTATTTCTGAATATTAACGGTGGTGAAGAGGGGACA  
 GTTTTTACCCTAAAGTGCAAAAGTGAACACTACAAATAAGACTAATTTTTAAGAGTAACCTGAGTAATTTCAAAA  
 TACAGATTTGAATAGCAGAAATTAGTGTTTGTAGTGTCTAGCAAGGAAAAATTTAGTAATAAATGAAGGTCTGG  
 TGTATATGTTTTAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCTCTATTTTCAGGA

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**FIGURE 265B**

TATAATTCTTAACATCATTATTTACCTGATTTTAATCATCAGATTTCGAAATTCGTGCCATGGCGTATATGTTT  
AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG  
TTGTTTTTCTGTTTACGTAACTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT  
CATTATTTCTCTTATCAACAACCTTGTGACATGAGATTTTTAAGGGCTTTATGTGAACATATGATATTGTAATTT  
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG  
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAAC  
ACTAACTTAATGTGATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACTTTGTAATTTGG  
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCCTTACCAAAAAAGGAAGTTGGCA  
AAAACAGCCTTCTAGCACACTTTTTAAATGAATAATGGTAGCCTAAACTTAATATTTTATAAAGTATTGTAAT  
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAA



**FIGURE 266**

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYGAEP TTVSPCPSSSAGTAVNFSSLSMTFPGGSSGVT PFGGAS  
SSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQI INNTEGDWWEARS IATGKNYIPSNYVAPA  
DSIQAEWYFGKMGRKDAERLLL NPGNQRGIFLVRESE TTGAYSL SIRDWDEIRGDNVKKHYKIRKLDNGGYIIT  
TRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVKLGGCCFGEVWMGTWNGIT  
KVAIKTLKPGTMMPEAF LQEAQIMKKLRHDKLVPLYAVVSEEP IYIVTEFMSKGSLLDF LKEGDGKYLKLPQLVD  
MAAQIADGMAYIERMNYIHRDLRAANI LVGENLVCKIADFGLARLIEDNEY TARQGAFFP IKWTAPEAALYGRFT  
IKSDVWSFGILQTELVTGRVPYPGMVNVREVLEQVERGYRMPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSF  
LEDYFTATEPQYQGENL

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FIGURE 267A

AGATTTGTATAATGGCGCTGCATTAAAGTAAAGAAAAACAAAGTCCAGCCATTAAATACAGACCTGAAAAATCTCC  
AGAGCCTGTCACTACAAGTGTGAGCCATTATGGAGCAGAACCACCTACAGTGTACCATTGTCCTCATCTTCAGC  
AAAGGGAAACAGCAGTAAATTTACGACAGTCTTTCCATGACACCATTTTGGAGGATCCTCAGGGGTAAACGCCCTTTTGG  
AGGTGCATCTTCTCATTTTCAGTGGTGCCAAAGTTCATATCCTGCTGGTTTAAACAGGTTGGTTACTATATTTGT  
TGGCCTATATGATTATGAAGCTAGAACCTACAGAAGACCTTTCATTTTGAAGAGGTGAAAGATTTCAAATAATTAA  
CAATACCGGAAGAGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAGAAATGGTTATATCCCGAGCAATATATGT  
AGCGCCTGCAGATTCCATTTCAGCAGAAGAAATGGTATTTTGGCAAATGGGGGAAGAAAGATCTCGTAAGAGATTACT  
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAACATAAAGGTGCTTATTCCCTTTTC  
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAAACTTGACAATGGTGGGATA  
CTATATCACAAACGAGAGCAAAATTTGATACTCTGCAGAAATTTGGTGAACACTACACAGAACATGCTGATGGTTT  
ATGCCACAAGTTGACAACCTGTGTGTCCAACCTGTAACCTCAGACTCAAGGTTAGCAAAAGATGCTTGGGAAAT  
CCCTCGAGAATCTTTGCGACTAGAGGTTAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA  
TGGAACCCACGAAAGTAGCAATCAAAACACTAAACCCAGGTACAATGATGCCAGAAGCTTTCTTCAAGAAGCTCA  
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCTACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT  
CACTGAAATTTATGTCAAAAGGAAGCTTATTAGATTTCCTTAAGGAAGGAGATGGAAGTATTTGAAGCTTCCACA  
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAGAAGTGAACATATTTCCACGAGATCT  
TCGGGCTGCTAATATCTTGTAGGAGAAAACTTGTGTGCAAAATAGCAGACTTTGGTTTAGCAAGGTTAATTGA  
AGACAATGAATACACAGCAGCAAGGATGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCATCTGATGG  
TCGGTTTACAATAAAGCTCGATGCTGTGGTCAATTTGGAAATTCGCAACAGAGACTAGTAACAAGGGCCGATGGCC  
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAAGTGGAGCGAGGATACAGGATGGCGTCCCTCAGGGGCT  
TCCAGAATCCCTCCATGAATGTGATGAATCTGTGTTGGAAGAAGGCCCTTGATGAAAGACCAACATTTGAATATAT  
TCAGTGCTTTCTTGGAAAGTACTTCTACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAAATTTAATATCAAGTA  
GCCATTTTATATGACAAATCTGCGCAAAATATAAAGAACTTGTGTAGATTTTCTCAGGAATCAAAAGAGAAAGA  
ATCTCTTTTACTCTGCGATGTTTAAATGGTAACTGGAAATCCAGATATGGTTGCAACAAACCACTTTTTTTTCC  
CCAAGTATTAACCTCTAATGTACCAATGATGAATTTATCAGCGTATTTTACAGGTCCTCAAAACAAATAGAGCTAAGA  
TACTGATGACAGTGGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCCCTT  
TCTTTTTTTCCCAAAGTCAGAAATGCTCAAAGAAAAATTTATTTGTTACAGATAAAACCTTGAGAGATAAAAAG  
CTATACCATAATAAAATCTAAATTAAGGAATATCATGGGACCAATAATCCATTCCAGTTTTTTTAAAGTTTCT  
TGCATTTATTTCTCAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTCTTTTGGCA  
TGACATGGGCGAGGTTTTTCAAAGGAATATAAACAGGATCTCAAACCTTGATTAATGTTAGACCACAGAAGTG  
GAATTTGAAAGTATAATGCGAGTACATTAATATTCATGTTCATGGAAGTGAAGAATAAGAACTTTTTCACITTCAG  
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAACTAGAAAGTGAGTTAATCTTGATGAGGTTGCATTG  
ATTTTAAAGGCAATATATAATTGAACACTCTGTCCAATCAAAGGGGAAGTTGTTGATCTTTAGATAGCATGCA  
AAGTAAGACCCAGCAATTTTAAAGCCCTTTTTTAAAACTAGACTCTGCTAGTGAGATTTGCTTATATGCTCTTA  
TGGGGATGGGTGCCAATAATGAAAAATATGACCAGATCAGGACTTGAATGCATTTTGTCTCATGGTGAATATAG  
ATGAACAGAGAGGAAAAATGTATTTAAAGAAATACGAGAAAAAGAAATGTGAAGTTTACAAGTTAGAGGGATG  
GAAGGTAATGTTTAATGTGTGATGTCATGGAGTGACAGAAATGGCTTTGCTGGCACTCAGAGCTCCCTCACTTAGCTA  
TATCTTGACAGCTTGAAGAGTTATAAGAGTATAACTATAAACTAATTTTCTTACACACTAAATGGGATTTGTT  
CAAAATAATGAAGTTATGGCTTCACATTCATTGTCAGTGGGATATGGTTTTTATGTAACATTTTTAGAATCCA  
GTTTTCAAATCATGTTGAATCTACATTCATTTTTTTTGTGTTCTTTTTTGAAGCGAGGTCTCGCTCTGCCGCC  
CAGGCTGGAGTGCAGTGGCGCATCTCGGCTCAGCTGCAAGCTCTGCTCCAGCTTCAACACCTCTCTCGCTCCT  
AGCCTCCCGAGTAGCTGGGACTACAGGTGCCACCACCAGCCTGGCTAGTTTTTGTATTTTATGATAGAGACGC  
AGTTTACCGTGTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCGCCTCGGCCCTCCCAAGGTGCT  
GGATTACAGCGGTGAGCCACGCGCCAGCTACATTCATCTTAAAGCTATGTGAATGGTGGATCTTTTTTCC  
CTTTTAGAATACATTAATGGTTGATTTGGGGAGGAAAACTTATCTGAATATTAACGGTGGTGAAGGGGGACA  
GTTTTTTACCCATAAGTGCAAAAGTGAACATACAAAAATAAGACTAATTTTTAAGAGTAACCTAGTAATTTCAAAA  
TACAGATTTGAATAGCAGCAATTAGTGTTTGAAGTCTGCAAGAGGAAAAATGTGAATAAAATGAAGGTCGG  
TGTATATGTTTTAAATACCTCTCATATAGTCACACTTTAAATTAAGCCTTATATAGGCCCTCTATTTTCAGGA

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**FIGURE 267B**

TATAATTCTTAACATATCATTATTTACCTGATTTTAATCATCAGATTCGAAATTCGTGCCATGGCGTATATGTTC  
AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTCTCTGGTACTAAAAATTGTGG  
TTGTTTTTCTGTTTACGTAACTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT  
CATTATTTCTCTTATCAACAACCTTGTGACATGAGATTTTTAAGGGCTTTATGTGAACATATGATTTGTAATTT  
TTCTAAGCATATTTAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG  
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAAC  
ACTAACTTAAATGTGTAATTCATTTAAATTGTTCTGTATTTTAAATTGCCAAGAAAAACAACITTTGTAATTTGG  
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCCTTACCAAAAAAGGAAGTTGGCA  
AAAACAGCCITCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAAACTTAATATTTTATAAAGTATTGTAAT  
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 268**

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYAEPTTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTFFGGAS  
SSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARS IATGKNYIPSNYVAPA  
DSIQAEWYFGKMGRKDAERLLL NPGNQRGIFLVRESETTKGAYSL SIRDWDEIRGDNVHKYKIRKLDNGGYIT  
TRAQFDTLQKLVKHYTEHADGLCHKLT TVCPTVKPQTQGLAKDAWEIPRESLRLEV KLGQCGFGEVWMGTWNGIT  
KVAIKTLKPGTMMPEAF LQEAQIMKKLRHDKLVPLYAVVSEEP IYIVTEFMSKGSLLDF LKEGDGKYLKLPQLVD  
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFGLARLIEDNEYTARQGAKFP IKWTAPEAALYGRFT  
IKSDVWSFGILQTELVTKGRVPYPGMVNRVLEQVERGYRMPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSF  
LEDYFTATEPQYQGENL

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FIGURE 269

CTCGGCCCCGGGCTGCCGCGCCAGCCCGTCTCCGCGCGGGGGACCGGGCTGCCTTGGCCCTCAGCGCTCGGCT  
CTTTTCCGCGAGTTGGAAACGCTTCCGTGTTGTCTCACCCGTAACCGCCTGTTGCCCTGTCTCAGAGTCCCTCA  
CGGCTCCCTCCCGCTTTTGCTCGTTGGCTGCCGCGCCGGGGCTTCGCCAGCCTCTCAAGTCGAGACTCATGCC  
CGAAGGGCGCTCTCGGCTCTCCCGCTGCCAGCCTGCCTCTCCCTGGGCTCTGACGCGCTGCAATGACACG  
CTCAACACCTTGCTCATCTGATTAACACACAGGAAGGAGGTTGACAATGACCAAGTGCACCTGGAGAATTT  
TTATAGCAAGCTTTATCGCTCAACATGAAGAACGAGAAATGAGACAAAGAAAGTTAGAAAAGGTTGATGGAAGAAGA  
AGGCTAAAAGATGAGGAGAAACGACTCCGGAGATCAGCACATGCTCGGAGGAAACAGAGTTTCTTCGTTTGA  
GAGAACAAGACTTGGATTGGAAGATTTTGAGTCCTTAAAAGTAATAGGCAGAGGAGCATTGGTGAGGTACGGCT  
TGTTCAGAAGAAAGATACGGGACATGTGTATGCAATGAAAATACTCCGTAAGCAGATATGCTTGAAAAGAGCA  
GGTTGGCCACATTTCGTGCGGAGCGTGACATTCTAGTGGAGGCAGACAGTTTGTTGGTTGTGAAAATGTCTATAG  
TTTTCAGGATAAGCTAAACCTCTACCTAATCATGGAGTTCCTGCCTGGAGGGACATGATGACCTTGTGTATGAA  
AAAAGACACTCTGACAGAAAGAGGAGACTCAGTTTATATAGCAGAAACAGTATTAGCCATAGACTCTATTACCA  
ACTTGGATTATCCACAGAGACATCAAACAGACAACCTTCTTTGGACAGCAAGGGCCATGTGAACTTTCTGA  
CTTTGGTCTTTGTCACAGGACTGAAAAAGCACAATAGGACAGAATTTATAGGAATCTGAACACAGCTCCCCAG  
TGATTTCACCTTCCAGAACATGAATCCAAAAGGAAAGCAGAAACCTGGAAAAGAAATAGACGTCAGCTAGCCCT  
CTCCACAGTAGGCACCTCTGACTAGCTTGTGTAATGCTGCTGAGGTCTCATGACAGCCGGGTACAAACAGCTCTGTGAATG  
GTGGTCGCTTGGGGTGATCATGTATGAGATGCTCATCGGCTACCCACCTTTCTGTCTGAGACCCCTCAAGAGAC  
ATATAAGAAGGTGATGAACCTGGAAGAAACTTTGACTTTTCTCCAGAGTTCCCATCTCTGAGAAAGCCAAGGA  
TCTAATTTTGAGGTTCTGCTGTGTAATGGGAACATAGAATTTGGAGTCTCGGAGTTGAGGAAATAAAAAGTAATC  
TTTTTTGAAGCGGTTGACTGGGAACATATCAGAGAGAGACCTGCTGCAATATCTATTGAAATCAAAAGCATTTGA  
TGATACCTCAAACCTTCGATGAGTTTCCAGAACTCGATATCTTAAAGCCAACAGTAGGCGCCACAAGTAATCATCTGA  
GACTGACTACAAGAACAAAGACTGGGTCTTTCATCAATTTACACGTACAAGCGCTTTGAGGGCCTGACTGCAAGGGG  
GGCAATACCTTCTCATGTAAGAGCAGCAAAATAGTACTCTTGCACGGAACTCCTATGTGGAGCAGAGTTTGTGT  
ATAAGACTCATGCTTTTCTCTTCACACTCTGGAAGAGCTTCAAGAAAGTTGATGGAACCCCACTAATCATGTCATGT  
AAAGTCTCTGAAATGTGGTAGTAAGAGGATTTTCTCCATAATGCATCTGAAAACTGTAACAACAAAGACAACCA  
TTTCTACTACGTCGGCCATAACAGCTATCCTGCTTTGGAAGAGAAGCATATGAGCCAAATTTGATAGGTGTTTT  
AAAAATAAATGAGTTTTCCTAAGTTTCATCAGAATGAAGGGGAAAAACAGCCATCATCCAACATTTAGAGATTG  
TCGTGTATAGTCATGCAATATCAGCCAGTTCTCTGTAATTTTGTGACACGCTCTCTGCCAAGCCCAAGTATTT  
CCTTTATAGCTAAAAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGCTCTCAGCAGCCAGGATTTCTGGCT  
GAAGGAAATGATCCGCCACCTGAGGTTGGTGATGGTAGTTTCAACCATCTCAGCTCAGCCGAGTGCGCTTA  
TAGCCTCCATTGATGGTGACCTTTATTTATGTTACTAAGATAAAGACTGTCAATCCATTGATCTTTATCTCTCGT  
TCCCCCTCTAAAAATACCATGCTGCTTTTCTGAGTGTGATGGGGGTACACAGCTGATGACTCATCTGTGCTCTTA  
GAAGGCCAGAAAGTCTTTGGGCATTGGCAAGAAATCCCGGATTATGTGGAACACCCCTCACTTTCTCTCACGGC  
GTACCAAGAAATCCCTAAGACAGACTTGGCCGTGGACTAGCAATACCTGCAAGTGTGCCAATGGGAACCTAAT  
TTTCTCTGGGAACCTAAGCAGAGAGCCAGGCCTAGCGAGGAGCCCTGGAACCCCTCTGGCTAAGGTGCTGT  
CTGTCTCTGCAAGGTCTCCAGAACCCCTTTGGAATGGTGAAGGAACAGCCCAATAGAAGTACAGAGCCAGCT  
GACAAGCTCTGTGAAGGCTCACTCCTCAGTCTTGGCACAGCCATGTTTGTCTCTCTCTGTTATTTCTCT  
TCCCACTTTAGCCATTTTGGCTTGAATCATGATTACAATTTTCTCTTCGATGAGCCTCTCTGGGGATACT  
CCTCCCACCCCTAAAGGGTCGCCTGCAACTTAGGCGGATGGGTCTCTCTGCTGTGGCGTCTCTCTTGAGAGAC  
CCTCTGAATTTAGCACAAAGTGCCTTCTGTTCACAGCTGCCACCACCTTTAGAGGAATTTCTGTCAGAAAAATG  
TGGAGGCTCATATTAATGCATTATTTTAAAAAGTTTGTATACTCTTAAAGACTATTGACACCTATGTGGG  
AACTTTGCCTGTTGCAAGTATGTGGCCGAGCTGCAGCTGGGAGCCTGCTTTCTGCCAGTCTTGAGGTTCTGAA  
GCATCAGCTTTGAAAGGAAAGTATGTCTAGCTTAGCCATTGAGAAGAGAAAAATGGAATATCAGAGTTACAGTTG  
TCAGTGAACACTCTTTGAAATTTAACTCTTAGAGGAAGAAAAAGGTTAGGGAAGTGTCAACTCTGGAATGAAG  
TGATGTGTTTGCCTCTCAGCTTTCTATTATAGCCTGCTAGTGAAGGAAGTAATAGATGATCTTTTGTGTGAC  
TTTGTAGTCTCTTTGATTACCAAAATAGTTGGGGTGTGACTCCTGTGTGTTTTCGAAGATGTGTGTAAGCCCT  
GGGTAAGGAAGGAACCTGCGGTGTGGGAGAGTCTTTGTGTGGGAGTGGGAGGATGATTTGTTTACGGGG  
AAAATGCCACATTTTAACCTTTAACTCTGTAATAAATCTGTGAAAAACAAAAAATAAAAAA

**FIGURE 270**

MAMTGSTPCSSMSNHTKERVMTKVTLENFYSNLIAQHEEREMRQKKLEKVMEEGLKDEEKLRRSAHARKETE  
FLRLKRTLGLGDFESLKVIGRGAFGEVRLVQKKDTGHVYAMKILRKADMLEKEQVGHIRAERDILVEADSLWVV  
KMFYSFQDKNLNLYLIMEFLPGGDMMLLMKKDTLTEEETQFYIAETVLAIIDSIHQLGF IHRDIKPDNLLDLSKGH  
VKLSDFGLCTGLKKAHRTEFYRNLNHSPLSDFTFQNMNSKRKAETWKRNRRLAFSTVGTDPDYIAPEVFMQTGYN  
KLCDWWSLGVIMYEMLIGYPFCSETPQETYKKVMNWKETLTFFPEVP ISEKAKDLILRFCEWEHRIGAPGVEE  
IKSNSFFEGVDWEHIRERPAAISIEIKSIDDTSNFEFPESDILKPTVATSNHPETDYKNKDWFVINYTYKRFEGL  
LTARGAIPSYMKAAL

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FIGURE 271A

GGACTGTGTGTCTCGGCTGTAGCAGACGCGAGGCGCGACGAGGCGCGGGGACCCGCGCGAGGGGCGGCCCGG  
 AGGCGCGCGCGCGCGCGCCAGAAGTAGCAGCAGGACCGCGCGCGCGCAGCGGAGCCCTGAAATGCATTTCCTC  
 TCCAGCGGGCATGTTAACACAGGAAACCTTCGGCCGCGCGCTCCCGCGCCCTACCCGACCGGCGGAGGTGGGGACAG  
 CGCCGCTTCGTAGCTTCAGGCTTCCTCCGCGGGCTCGGTGCAAGGCGCCACCCGGAGCGGAGTGGGACATGGCCCGCC  
 CTCCTCCATCGCCCTGCGCCCTCTCCGGCCAGCAACGCTGCGCGCCAGCAACGCTGCTGAGCAGCTTCAGGTTGGCGCAGTAAGCA  
 CACAATGAATGATCACCTGCATGTCCGCGAGCCAGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATAA  
 CAGTAACAAGCGGACAGTGCTCACGACACAACCAATGGGCTTACAACAGTGGGCAACCGGCTTGCCAGTGTG  
 GCCAGAGCGGCGAGCTGGACAGCATTCATAGACGGCAGGGGAGCTCCACCTCTCTAAAGCTCATGGAAGGCATGGG  
 GAAGGTGAAAGCCACCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAACCTCACAGCCTTCGAAACA  
 CCATGAGATTTTACGTACCTCGAATAATATTTCTGGGCTCAAATGCTAAGAAGCGCCAGGGCATGACAGGTGG  
 GCCCAACAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTGCCCCACGATCACGTGGCTTACAGGTA  
 TGAGGTCTCAAGGTCATTGGGAAGGGGAGCTTTGGGCAGGTGGTCAAGGCCCTACGATCACAAGTCCACCAGCA  
 CGTGGCCCTAAAGATGGTGCGGAATGAGAAGCGCTTCACCGGCAAGCAGCGGAGGAGATCCGAATCCTGGAAACA  
 CCTGCGGAAGCAGGACAAGGATAACACAATGAATGTCATCCATATGCTGGAGAATTTACCTTCGCGAACACAT  
 CTCGATGACGTTTGAAGTGTGAGCAGCATGAACCTCTATGAGCTCATCAAGAAGAATAAATTCAGGGCTTCAGTCT  
 GCCTTTGGTTCGCAAGTTTGCCCACTGATTCGAGTGCTTGGATGCTTTGCAACAACAGAAATAATTCATCTG  
 TGACCTTAAGCCCGAGAACATTTTGTTAAAGCAGCAGGGTAGAAGCGGTATTAAGTAATTTGATTTTGGCTCCAG  
 TTGTTACGAGCATCAGCGTGCTACACGTACATCCAGTCGCGTTTTTACCGGGCTCCAGAAGTGATCTTGGGGC  
 CAGGTATGCGATGCCATTCATATGATGTGGAGCTGGGCTGCATTTAGCAGAGCTCTTGACGGGATACCCCTCTT  
 GCCTGGGGAAGATGAAGGGGACCAAGCTGGCCTGTATGATTGAACCTGTTGGGCATGCCCTCACAGAACTCGTGGA  
 TGCATCCAAAGCAGGCCAAAAATTTGTGAGCTCAAGGGTTATCCCGTTACTGCACTGCACAGCTCTCTCAGA  
 TGGCTCTGGGTCTTAAACGAGGCGCGTTCCCGGAGGGGAAAGCTGAGGGGCGCCACCGGAGAGCAGAGAGTGGGG  
 GAACCGCGCTGAAGGGGTGTGATGATCCCTTTTCTTGACTTCTTAAACAGTGTTTAGAGTGGGATCTGCACT  
 GCGCATGACCCCAAGCCAGCTTTTGGCGCACCCCTGGCTGAGGAGCGGTTGCCAACCGCTTCCCAACCGGGAGAA  
 AACGTCAGTGAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATATCCAAGTTACCTCCACCTTCTAGCTC  
 AGCTTCCAACCTGAGGACTAATTTGGCGCAGATGACAGATGCCAATGGGAATATTACGAGAGGACAGGTGTTGCC  
 AAAAATGTTAGCTGAAGCTCACGTCCCTGATGCTGGTAACCTGAAAGATACGACATTGCTGAGCCTTACTGGGT  
 TGAAAGGAGTAGCTCAGACCTGTTTTTATTGCTCAATAACTCTACTCATTGTATCTTTTACGACCTTAATTT  
 TAATGTAAGAAAGTTGTTCATTTTGTTTTTATAAAATACATGAGGACAATGCTTTAAGTTTTTATACCTTTAGAA  
 ACTTTTTGTGTTCTAAAGTACAATGAGCCTTACTGTATTTAGTGTGGCAACAATAAACATCATGTCGAGCCACA  
 CTGATTACTTTCATGACTGCCACGCAATTACAGATTGGTGTCAAAGACATTCTACTATGTTTTTATGGTTCATGTTA  
 TATCCTCCCCAGGGTGACAGCCCTTAAGGCCCTCCTTTTCCCTCCATGCTCCAGGTCCATGCACAGGTGTAGCA  
 TGCTCTGCTTCGGTTTTTTCATAAATAATCTGGGTGTGGGGGTAGTGGGAGGAGAACGGTCAGAAATCAAGGTGA  
 CATCTTAAGAAAACTGTACCTTAGAGATTTTCTCTAGTGCTCAACAAAATACAAAATAAGATCCCCAAGGTT  
 AAACCTGCCAGTTAGCATTTGACATTTCAAAGCGCGCAAAAGCAGCTTTTAGTGGAATAAGGAAATGGAAACG  
 TGTGTGTTCTCCAAATTTTCTAGTATGATCGGTGAGCTGTTTTTGTAAAGAGCCTCATATTACAGAGTTGCTTT  
 TGACCTCAAAATTTAGAATTTGATTCATGAACCTGTTCTCCCTTTTCTCTGCTTTTCTCAGCTCTCTGTTCTCTTT  
 TAATACCAACAGCTCTGTTGCTGCTGCAATTTAGTTTGTCTTCTCTCAGCTGTGTCACAGCTGTTAATACAGA  
 AAAGAGACATTTTACGCTGTGATTATGACCAATGTTTCATATTTCCAATTAAGAAAGAACAGCAGCCTAGCTACTT  
 AAGGTGGGGATTTTCATAGTTCCAAAGAAAGATTTAGCAGATTAGAGTGAGTTCACACTTTTCAGGTGCCACTGTAA  
 GGTCTCTCAGCCTGGGAAACTATCAACTCTTCTTTAAAGAAAGAGGGGTGAAATACCTCTGGACGAACAGA  
 AGTCACTTTGGCTGTTCAGTAAGGCCAATGTGTAACAACACGTTTAGAGGAGGAAAGTTCACCTCAAGTTAAAT  
 GGTTTGACTTATTTCTGATCATTAGAAGAACCCAGAGATAGCATTCTCTATTTTATTTTACTTTCTTTTGG  
 ATTGCACTGATGTTTTTGTGGGAATGACACTTTATCTGGCAAGTAACAGTGTGAGGTTTTGGTAAAGAAATATTTCT  
 TTCTCTGAATAATAATATTTTACAGTGAAAAATTCAGTATTTTATCACTAATGTATGAGCAATGATCTATATC  
 AATTTCAAGGCACGTGAAAAAATTTTTAGTATGTGCAATTTAATATAGAAGATTTCTGCTGTTTTGGACAAT  
 AGGTTTTGGGTAGTACAGATTAGGATAAGTAAGCTTATATGACAGAGATTTAGTATTTACCTGTAATTTGAT  
 TTACAAGTACTTAAAGCGTGGTCCCCAGTGAGGCCAAGAAAGTTTCCGGTTAGTGTCTTTAATAATAATCCTAC

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**FIGURE 271B**

AGTTTATCTTAAGAA



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**FIGURE 272**

MLTRKPSAAAPAYPTGRGGDSAVRQLQASPLGAGPTRSGVGTGPPSPIALPPLRASNAAAAHTIGGSKHTMN  
 DHLHVGS SHAHQIQVQQLFEDNSNKRTVLTTPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSMEGMGKVK  
 ATPMTPEQAMKQYMQKLTA FEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGGYDDQGSYVQVPHDHVAYRYEVL  
 KVIGKGSFGQVVKAYDHKVHQHVALKMRNEKRFHRQAAEEIRILEHLRKQDKDNTMNVIHMLENFTFRNHICMT  
 FELLSMNLYELIKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIIHCDLKPENILLKQQGRSGIKVIDFGSSCYE  
 HQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAEELLTGYPLLPGEDEGDQLACMIELLGMP SQKLLDASK  
 RAKNFVSSKGYPRYCTVTTLSDGSVVLNCGRSRRGKLRGPPESREWGNALKGCDPLFLDFLKQCLEWDPVRMT  
 PGQALRHPWLRRRLPKPPTGEKTSVKRITESTGAITSISKLPPSSSASKLRTNLAQMTDANGNIQRTVLPKLV  
 S

CAGCTGCCAGCCGAGGAGCGCGGAGAGGGGACTGCGGTGAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC  
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAAGCTTATCCCCCGCCGCTAGCCCGCCCTGGTCCC  
CGGCTCGCTCGCTGGCTGGCGGGCGCCCGGCCCGCTCTGCGTCGGCCCCGCCCGGCTGGAGGCGCGCGAGGGGG  
ACGCGCGCCGGGATGAGCGGATTGCGGGTGAAGCTCGCCGCCCGGGGGCCCGCGAAGCCGTGAGCCGCTGCTTTT  
CTCCGAGTGCAGCCGCTGCCCTCGCTTGGATTGAGATCAGTCCATCCACATCGCTGGGCAACGAGGGGGACA  
CATTCCACCAGGACAACCGCCGCTGGGGCTTATCCGCACATTACCTGGGGAGAAGCCCTCTGCTCTCGGGGAGC  
AGAGCAGCTTGTGTGAACGCGGCGAGCAGCGTCGCGCTCCGCTGTTACCCAGATATCAGCCAGTCGCTTTG  
GGAATGTCAAGCTGGTGGTCCACGACTGCCGCTCGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC  
TAATTGGGGGCGCTGACATCATTTGTATCAAATAACAAGTAAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA  
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCCAGTAATTATGCTGCTTGGTACACAGAAAAATG  
AAGAGTTACCTTGTACATGCCACTATGTACCTCAGACAGAGGGAGCTGTGTAGTACAACGAAGGGATCCAAC  
TTGCAAAAGAACTAGGAGCAACCTATCTTGAAGCTCCACAGCCTTGATGACTTCTACATAGGAAAGTATTTGGAG  
GAGTGTGGAGATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAAAAATGAAGAAAAAGAAAAATGAGCA  
ACTCCTTTCATGGAATTAGACCACCTCAACTTGAACAACCCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC  
ATTATAACTCTGACTTAAATAACTTGCCTGTTCTGCTGCCAGTGTTGGAGCGTGGTATTTTATAACCCCGATTAA  
AGAAAGTTGTAGAGCCGACAAGATGGCTTCTGCGCTGTAAGCCATGTTTTCATGCTGTTTAAATGTGAAGA  
GTCCCACTGACATTCAAGATTCCAGTATCATCCGAACCTACCCAGGATCTTTTGTCTATAACAGAGATACTGCAT  
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTCTGTTCTT  
GTTTATCAGACATCTTCGCTTCAATTTATTCAGGTGCTTTTCAGTGAGAAAGTAAATGGAAGAAGATATCAGGAAGA  
AGTTGAAAGATTCTGGGAGTGTTCAAATGTAACTGAGAAAGTTAAATGCATTTTAAAAACACCCAGGAAGATTA  
ATTGCTAAGGAATTGAAAAACCTATCAAGCCAGAAAAACCTTTGTGGTTTATAACACTTCCCTCAAGTTTCTTCC  
TTAAAGAGCCGATGCTTCCGCGATGTCTTCGAAATTCAGGTACGACAGTGCACGCCACAGGCCATCCTGG  
TGCCCGGTTGTGAAGTGTAGCGAGCATGTTTAAATGGTAAATACATGGAAGACAAGAGTGCTCTGATTCCCGGTTT  
ATGGTGTTCCAAAGAGACTTCTTGTGCTTTTATAGATCTGTACACAGACTCTGCTGCGGACTGGCAGAT  
TCCAGGCCATGTGCTCTCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCAGCATCTGTGAGCTGTTCA  
TCATTACCAGCTGCAGAGCATGCCAAGCAGGGAAGTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA  
AGGCCAAGTTTCACCACTCTGATTGCCCTTCAACCTGGCTACTTCATTTCATTGCTACTAACTACCTCATCTTCA  
GTCAAAGCCTGAATTTCAAGATCTTTCAGTGGAAGAACGCGATTTTGTGAAAAGCAGAGATGGCCGCTCGAATA  
TGTAATTGAAGCAGCTTGCAGGATACAGGAATATATTAAGTCCCGGAAATGTCGTTGCTTAGTAATGTAACTCG  
GAGCTTTTATACACTACTTCTTTTATTTATTAATGAAGAATGGGATAGCTCCAGGTTCCGATTAAGAAATCTCT  
GACCGAAACCAATGTGGGTGTAGAAAAAATACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAACC  
TACCATCTGTGCTTTAAAGGGAAACAAAATATACCATAGGCTAAAAGCTTTTCACTCTAGAATGCAAGCT  
GTTTTCAGCTGTGTTTCCCTTAAAGATGTCCGTGTTGCTTTAGTGATATTAGACCCCTCTCAGTTAAGAAATGCT  
TAGATTAAAAAAGAAAAATACGTAGGATTAAACAGAAATTTAATCATGTCTGATTAAATGCTCTATTAAAAAT  
AGGGGCATTTAAGACCCAGCAACCATTTGTATAATGAGAAATCTAGGGAAACCAATCAGGATCATAGATGAG  
ATTTTAGGAATAGAAATTTGCCGCCATTGGAAGGTGAATGCCACTTAGTTCTCAATTTGATGACAGTGTGTTGA  
ATCATCATAAAAAATACTGCTTTTATCTGGAACAACCAATTGAGCCACTTATCTCTTTTGGCAATCTGTA  
GTAGCGGGGACCTAGGACGGCTGGCTTCTTAGCGGTAACTTGTGATGACGACAGGGGCCCACTTAGAA  
GGACCCCACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAAATATGTTTGAAGAAGGGCCCCATGATTT  
ATTTTGTGCTGAGCCCTCAAAATATATGCTGTTTCTGTTGGGAAATATCTTATGTTTCTGCTCAACACCTT  
TCTCTCTGAAAGCAGAAAAAGGCATGATATAAGGGGAAGAGAAGAGGAGCTCCCGGAGGGAAGAGAAATAGT  
AAGATTCCCGCTTTGGGGAGTCTGGACCCACAGGGCTCCACTGCCACCTTGGCTGGAAGGAGAAATGTG  
TTGTGTTGCTTAGCTTTAAACAGTCACAGTTCTTGCTCTATCATAGATGAACAAATACCTTTCTTGATCATCT  
GTAAGCCAGGAGGTTGTAAGAGCTGAACCAAGCCTAACTTAAATACACATGTATAAAGATGTACAGAGAA  
AGATGCTCTGTAGAGAAATTTGCTACCGAAGTTGGCTCAAGAAATTTGTTTATAGTGTATTACCAAGATTAGGAC  
GTCAGTGGCTTAAATCTTTGAAATCTTTTCAAGGACTGCAAGATTTTGTATAAGAGTAGCATGAATCTTTGTG  
CTCTAAATATACAGATAGTTCAGAAAGAGGTAGTGAAGTCAAGAGCTTGTTCATAGAGGGGAAATGAGCTGGG  
ATAGAGGACAGACTGATAGTTTCTTCTTTCATATCATAGTATAGAGAAAAATTTATATCAGAAATCATCAAC

**FIGURE 273B**

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTT  
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA  
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC  
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTCGAA  
ACCGAGCTGGCCAAAACAGTGAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT  
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG  
ATCGCACCCTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTC

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**FIGURE 274**

MSIHVALGNEGDTFHQDNPSGLIRTYLGRSPLVSGDESSLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV  
 WDI FDS DWYTSRNLIGGADIIVIKYNVNDKFSFHEVKDNYIPVIKRALNSVPVIIAAVGTRQNEELPCTCPLCTS  
 DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKRKMNSNFSHGIRPPQLE  
 QPEKMPVLKAEASHYNSDLNLLFCQCQVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLEFNVKSPTDIQDSSIIR  
 TTQDLFAINRDTAFPGASHESGNPPLRVI VKDALFCCLSDILRFIYSGAFQWEELEEDIRKKLDSGDVSNVI  
 EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPM LADVVEIQGTTVP AHRAILVARCEVMAAMFN  
 GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSR LQHICELFIITQLQSMPSRE  
 LASMNLDIVDLLKKAKFHHSDCLSTWLLHFIATNYLIFSQRPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY  
 IHSRKRCLVM

## FIGURE 275A

CAGCTGCCAGCCGAGGAGGCCGCGCGGAGAGGGGACTGCGGTGAGTGCCTCCACTTGGGGCTGTGCGGCGGTCC  
CGCGCCCGGCATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCCGCCGCTAGCCCGCCCTGGTCCC  
CGGCTCGCTCGTGGCTGGCGCGGCCCGGCCCGCTCTGCGTCCGCCCGCCGCGGTGAGAGCGCGCGAGGGGG  
ACGCGGGCGGGGATGAGCGGATTCGGGGTGAACCTCGCCGCCGGGGGGCCCCGCGAAGCCGTGAGCCGCTGCTTTT  
CTCGAGTTCGCCGCTCCGCTTGGATTTGAGATCATGCTCCATCCACATCTGCGGCTGGGGACGAGGGGACGACA  
CATTCACACAGGACAACCGCCGTTCGGGGCTTATCCGCATTACCTGGGGAGAAGCCCTCTGCTCTCGGGGAGC  
AGAGCAGCTTGTGTGAACCGCGCCAGCACGGTCCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCCTTTG  
GGAATGTCAAGCTGGTGGTCCAGCATGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC  
TAATTTGGGGGCGCTGACATCATTTGTATCAAAACAACGTTAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA  
ATTATATTCAGTGTATAAAAAAGAGCATTAATTCAGTTCACGTAATATTGCTGCTGTTGGTACAGACAAATG  
AAGAGTTACCTTGATACATGCCCACTATGTACCTCAGACAGAGGAGCTGTGTTAGTACAACATGAAGGATCCAAC  
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACCTCCAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG  
GAGTGTGGAGTATTTTATGATTCAGGCCTTAAATCAGAAGACAAGTGAAAAAATGAAGAAAAAATGAGCA  
ACTCCTTTTCATGGAATTAGACCACCTCAACTTGAACAACCCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC  
ATTATAACTCTGACTTAATAACTCTGCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCGATTTAA  
AGAAAGTTGTAGAGGCCACAAAGATCGCTTCTGCGCTGTAAGCCATGTTTTCATGCTGCTTTTCAATGTGAAGA  
GTCCCACTGACATTCAGGATTCAGTATCATCCGAACCTACCCAGGATCTTTTGTCTATAAACAGAGATACTGCAT  
TTCAGGTGCTAGCCATGAATTCAGGCAACCCACCTTACGAGTCATTGTTAAAGACGCCCTCTTCTGTCTCTT  
GTTTACAGACATCTTCGCTTCATTATTACGGTGTCTTTCAGTGGGAAGAAATGGAAGAAGATATCAGGAAGA  
AGTTGAAAGATTCGGGGATGTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAACACCCAGGAAAGATTA  
ATTGCCTAAGGAATGCAAAACCTATCAAGCCAGAAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC  
TATAAAGCCGATGCTGCCAGTGTGTCTTCGAATTCAGGTACGACAGTCCAGCCACAGGGCCATCTCGT  
TGGCCCGTTGTGAAGTGATGCCAGCCATGTTAATGGTAATTACATGGAAGCAAGAGGTGTCCTGATTCGCCGTT  
ATGGTGTTCCAAAGAGACTTCTGTGCTATTTTAGAATACCTGTACACAGACTCTGCTGCCAGCTGGCATAT  
TCCAGGCCATGTGCTCCTGATCTGTGCGGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA  
TCATTACCGAGCTGCAGAGCATGCCAAGCAGGGAACCTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA  
AGGCCAAGTTTCAACCATGTTGTCCTTCAACCTGGCTACTTTCATTTCATGTCTACTAATCACTCATCTTCA  
GTCAAAAGCCTGAATTCAGGATCTTTCAGTGGGAAGACGCAAGTTTGTGTAAGAACAGACAGATGGCCGTGCAATA  
TGTACTTGAAGCAGCTTGCAGGAATACAGGAAGTATATTCACCTCCCGGAAATGCTGCTGTAGTAATGTAACTCG  
GAGCTTTTATACATACATTTCTTTTTATTTATATGAAGATGGGATACCCAGGTTCCAGTAAAAATCTCTCT  
GACCGAAACCAATGTGGGTGTGTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAAC  
TACCATTGTGGTCTTAAAGGGGAACAAAAATATACCATAGGCTAAAACCTAAGGCTTCTACTTAGAATGCAAAAGCT  
GTTTGTGAGCTGTTTTCCCTTAAAGATGTCCTGTGCTTGTAGTATTTAGACCTTTAGACCTTAAGAATGCT  
TAGATTAATAAAAAAAATACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATGTCTTATTAATAA  
AGGGGCATTTAAAGACCCAGCATACCACTTTGTATAATGAGAAATCTAGGGGAAAAACCAATCGCTCAACATGAG  
ATTTTAGAATAGAAATTTTCGGGCAATTTGGAAGTGAAATGCCATCTAGTTTCTCAATTTGATGACAGTGTGTA  
ATCATCATAAAAAAATACCTGCTTTTATCTGGACAACCCAATTGAGCCACTTATCTCCTTTTGGCAACTCTGA  
GTAGCCGGGGAACCTAGGCAAGGCTGCTTCTTAGCGTGTAACTTGTGTAGCAGCAGCGGCCCACTTAGAA  
GGACCCCACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAAATAATGTTTGAAGAAGGGCCCCATGATTTT  
ATTTGTGCTGAGCCCTCAAAATATGCTGTTTCTGCTGGGAAATATCCATGATTTTCTGCTCAACACCTT  
TCTCTCTGAAGCCAGAAAAAGGCATGATATAAAGGGAAGAGAGGAGGCTCAGCGAGGGAAGAGACATAGTG  
AAGATTCGCCCTTTGGGGAGGTCTGGACCACCCAGGGCTCCACTGCCACCTTGGCTGGCAAGGAGAAATGTG  
TTGTGTTGCTTAGCTTTAAACAGCTCAGAGTTCTGTCTATCATAGATGAACAAATCTTTCTTGATCATCT  
GTAAGACAGGAGTTTGGTAAGAGTGACTAACCCAGCCCTAACTTAAATACACATGTATAAAGATGTTTACAGAGAA  
AGATGCTCTGTAGAGAAATTTGCTACCGAAGTTGGCTCAAGAAATTTGTTTTAGTGTTATTACCAAGATTAGGAC  
GTGAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTTATTGATAAAGATAGCATGAATCTTTGTG  
CTCTAATATTACAGATAGTTTCAAGAAAGAGTGAAGTCAAGAGCTTGTGTACATAGGGAATAATGGACTGGG  
ATAGAGGACAGACTGATAGTTTCTTCTTTCATATCATATGATATAGAGAAATAATTATATCAGAACTCAACAA

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**FIGURE 275B**

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT  
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA  
GTATAATATTGGGACCCCATACCGTTAGCCCTTGATGTATACCAACACTGCCAAAGTAAACATTAGGTCAGGC  
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA  
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACCT  
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG  
ATCGCACCACTGCCTCCAGCCTGGGTGACAAGAGCGAACTCCATCTC

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**FIGURE 276**

MSIHVALGNEGDTFHQONRPSGLIRTYLGRSPLVSGDESSLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV  
WDIFDSDWYTSRNLIGGADIIVIKYNVNDKFSFHEVKDNYIPVIKRALNSVPVIIAAVGTQNEELPCTCPLCTS  
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE  
QPEKMPVLKAEASHYNSDLNLLFCQCQVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR  
TTQDLFAINRDTAFPGASHESGNNPLRVIVKDALFCSCLSDILRFIYSGAFQWEELEEDIRKKLKDSDGVSNI  
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMPLADVVEIQGTTVPAHRAILVARCEVMAAMFN  
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLOHICELFIITQLQSMPSRE  
LASMNLDIVDLLKKAKFHHSDCSLTWLLHF IATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY  
IHSRKCRCCLVM

## FIGURE 277

GCGGCCCGCTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGGGGCTCTGCGAACGAACCTTTTCCTGAAA  
CTCTCTGGATTCTCTGTAACAGTGGGGCTCAGCCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC  
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC  
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTAACGAGGCGCAATGCTCGTTGCATCC  
TGGGAGTCGTAGTGCTCAGCAGGCTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCGCAAGCCTTGIGCA  
CGCCTTCCGGAAGGAGTTTGTACACGAGGCTCTGAGAGACAGAGGCAGCGTGTTGAGCTGCTGGTGCGGTGGTC  
AGCGCGATGCCCAAGGCCAAGGGCAAAACCCGGAGGCAGAAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC  
CGGAATGCTCGACGGAAGGCAGCGCGGGAATCGAATGCTCCACATCCGACATGCCTGGGACCACGCTAAATCG  
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCTCCGTAAGAGAAAGGTG  
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCATAAGAGCTTGTAACGGAAGCCCTATGTGCTGAATGACCTGGAG  
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA  
GAGAACCCAGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT  
CGGAGTAAGATCAACGCTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG  
AAGATGGAGGTGGAGTAACCTGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCGGACCAGTGAAGCTGGA  
GCCAGGTTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA  
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTATCTGGGGGTTT  
ACGGAAAAGCCAGAACCTGCTGTTTTTCAGGGTGGGTGATGTAATATAGTGTGTACATAATAAGCAAATATATT  
TTAAA



**FIGURE 278**

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMLAVDPNRAVPLRKRKVKKA  
MEVDIEERPKELVRRKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS  
KINVYKRFYPAEWQDFLDSLQKRKMEVE

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FIGURE 279A

CGTCCACCGTGGAGTCTCTCCTTGGCTTTGGGTCCACTGAGCCCCACACATTTGTTAGTGTCTGATTGTCTCCTTG  
CCCTTACAGGACAGGAAGCGAATCTCTGTTCCTTTGTAGGGACCTTTCTTTTGTAGGTGAAAGGGACAGAAAT  
ATGATTTCTGGCCTCCTGTATGGTGAATACAGGAACACTTTTCAGATAAATTACAATACAGAGAGTACAGCTTATTT  
AAACAAACTGAGGTTAAAGCAGACTTGCAGTTAACAGTGAAAAAATTTAAAGCAAGTACCTGGATGGATGCAAA  
GCAGTGCCACAGGAGACCAACTTACGTGACAGAGATGATCATTGTCACTCATTTCATTATGTGTTTGTAGCACCAGCC  
ATGTGCCAGGCTCCAGAACTAGAGAAACTTTGGGTGTAGGTGAGATCATAGGAACAGTCCCTGCCCCAGCTGAAACA  
TCAGGAAGCCAGACTGGGAGACATGCCGTGGCTGACTAGGACTCCAGCAGGGACCTGGGGTTCCAGTCAAGTACAG  
TGTAAGCGATGGTTTCCCAAATGAGACCTCTCCAGAGATGGTTCATTCCACCCCGCAATGGCCACAGAAACAT  
TGTGCTGACCCAGAGGGCTTCACTGCCCCAAACCCCAAATTCACACTCCAGGATGAGAAACCTAAAAGTCTATCTT  
GATGAGGCTTCATAGCTGGAACACCCCTCATGGATCCACAGGCTGCAATTTGATGAAAGGAGACTCCAGGAAGT  
CGAGCCATTCCAGGCAGACATGTAGCAAAAGCCCGAGCTGGGGTCCGCCCTCATGCAATAAATAACACTGTGCA  
CATAAGAGAGGTGACAGGCAGGGCATCCCTGGGGACCTGGGCTGTGGCAGTGAAGAAACACCAAGAGAGCAC  
GAAGTCCCAATGCCATGACCAGATATTTCCGTGCCAGGCATGCTTCTGGGTCCACGAAAAAGACACAAATCCG  
TGTCCTTGGGACCCACAGTCTAGTGACCTAGGGCTGGCCGGGTGCGACGCTTTTTCAGAGGCTCCGAAAGCCT  
CTGCATGGATGCAACTTTGGGGGAAAGTAACCTTAACCTCTGCTTCTCATCTCCCTCTCTGTGTATAT  
GTCTGTCTCTTCTCTCTGTGTGTGCCCTTCCCACTCCCATCCCACTCTCTTTTATTTATTTATTTTGGT  
GGTGTGTGGCTCGGTTCTCTGTGGTCCCTCGTGTGGCCCTCCCTGCTGCAAGAACTCGTCCAGCTCGGCCCTC  
TCGGAAGCTCCGGAACCTGCCAGTCACTGAGCAGTGACGCTCCCCACCTCTGTGAGCTCGGGCTCCACCATG  
GGTGCCTGGGTGTCCACAGAGAAGGTGACGCCCGGGTGGCAGCCACAGCGGCCCACTCTCCCTGGTCCCCCTG  
CCTGCTGCTCAGACAGCCCTCAGAGCCCGGGCAACCTGGAAGCTCAGAACTCGACACCAAGAGTGGGGCTCTCTTT  
GGGACAGAGGGTGGGACAAGGCTGAGAGCATTTTCTAGAAATGAGTGCCCTGGCTGCTGGCAATGACACATGGT  
TGCTCAAGGGAGAGGAAGGGGTATGGGAATTTGGAGGTGTGAAGGCTTCTCCAGACCAAGGTGTTGCGTGCC  
TGTCATCTCTCTCTCCCTTCAGTCTCCCGAGGCCACCCACAGACCGTTGGATGAGCAATGTCACTGTGTCAGAGGCTG  
TGTGCTTTTCGGCTTTTGTGTTGACCCCCACCCCTGCCCCTGATTGAGCAATGTGCTCTGAGCAATGCGAC  
GATTTTGAAACCTCAGAAATGAACAGATTCAATTGAAGATGCTTTGGAATTTTAAATTTGCATAATGAATGAGC  
AAATCACTATCACCATTAATAGAGGCTTCATTAGTTACATTATCAAAAACCATTGACAAGGCCACAAATTGAGGG  
CACTGATCAATTTCCAACTTCTAAAACGTAGGTCAAACATAGATGCTTATTTGCTGTCAAACCTCATGTGCATTC  
TTTGACCCCGGCTCTTTCTCTTGATCAGACATATCCGTGAGCAGCAGAGCCCAATGTTGTTGTTTATTTAT  
AAATATTCAAGTTTCCCTCCCTTGAATGTCAATGCAATTTGTATCTCCGACATCATCTGTTATTAATTTT  
TTTTCTTTTCCCCCCTTTTTTTGTTTGTGTTTCCAGTTGTCTAACGGGTTTTCTCACTATAGTTTATCAAGTGAG  
TCCCAGCTGGGGCCACGGGTGCGAGGCCTTTTCCCTCATTGCTGCTGCTGCCCTGCCCTGCTCCCTCGGGTCACC  
CTGTGCCCTTCCAGACTAGCTCATATTATACACCAATTGGGCCCGGCACTGTCGCGTATCTCAGATCCCTAGC  
TGGAAGGACTGGGCTAAGCCTGGGCCCTATGACCAGCCTCTGGTGAACACCTCGACGCGCCGCAAGAGAGAAGCGA  
GAACCGGACCCCAAGCGGGGAGGACCCATACGCCAGCGGGCCCACTGCAGCAGCTGAGGAGGCTCAGAGACCA  
CGGACATAGCTGATCGGTATCGGTGCCACAGGCCTGTGTAGGAGATGGAGGCTGTGAGGAGCTGGCCCTGGCCCTG  
TCTCGGGCTGACGTGGACACCCAGAGGAGCAGCCGGGACTCGCTTCAGTGCTCAGCGGCTACAGACCCAG  
ACAACACCCCTGCTGCTGTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT  
GACCAAGGAGCAGATCAGCAGGAGTTCCAGAAAGTCTCCACCATCCAGAAACAGGCAATCAGCAGGCTCTAC  
CGAGGATGTTCCAAAGCCAAGCGTCCAGCCTCAACTGCTGGCTCCCAACCACTGGGACCTGCTATGGTCACT  
CCAGGGGTTGCAACTATCCGACGAGACCCCTTCCACCAAGCCTTCTGTCCGCCGGGGAACCATGAGAGCTGTGCC  
ATCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCAAGCCTCCAGACCTCCAGGGGTGTTGGCCAGCCCT  
CCAGATGGGCCAGAAAGCGGGGGGAGCAGCCCTGAGTCGCCATCTGTGGGTGAGGGCGCCCAAGGTGTCACC  
AGCATGCCCTCTCAATGTGGAGCGGCCAAGCTTCCGTTAACCTCCACTCCAGGCCGGAAGCCAGTATCCCT  
GAGGACACAGACAGGCAATTCAGAAAGTGAAGCTGAAGACCAAGGAAACCCCAAGTGCCACTGTCTCC  
CGAGGCCAGATTCCAGAGAGTGTGACCTCGAGACCTGAGCCCAAGGGATGCTCCCAAGGAGAGACATGCTGAAC  
CCCATCCGAAGCGGCGTGAATCTGAAGAAGACCAGACAAACGATCGCTAGCCCTCGCTTTCTTCTAGTTCAC  
AAGAAATGCGCCGTTGGGGAATGAAGTGTTCATTAATAAAACCTAATTTGTCTGTATCCATTCCACTCTATAAT  
AAACAAAAGATTTTGTAGGCACTCGGAATATAGCTCTTTTGAAGTACTCGACACCTTTAGATAAGAAATTA

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**FIGURE 279B**

ACCAACCTATGTAAGTACATATCTTGATCTTTTAATTGTAAATATTGACAAATTTCTTTCTGCACATTTTAA  
TCTTAGTTTCCCTTTTGTATTTTCTGAAGGTGCCAAATTCACATTTAACTTTTTTACAAGTCTTTGTAAAAATTTA  
AATGCATAAAAGGGGTTGGGGCAGGGGAACACGAAGTAGTTAATTTAGAAAAAGGATTTACTATACTTCACTCT  
TCTTTTTTTTCCCCACAAGCTTTGTAGATGCATTGTAGTAGTCTAGCTTAGAAGCAATGCAAGTTATTTTAA  
TGTACAACTAAATGGGTAAGAGGTAAAACTTTCATTTAAATATACATGTGTTCTGGATGAAAAGAGCAGGAGTAA  
CAATTGATGAGCAATATTACAGAGTGAAGTAAATCTGGAAATGGTAGACTGTGTTGGGATTGGGGGAGGGCCATG  
GGAGGGGTACATCGTCAACATAGCCGATCCTGTTACATTTAAGAGTAGCCTCGTAGGTTGAATTTCTTCTGGTAG  
CTTCATGGTAAATGCATCCGAATAAGCCATACTGGATTGCAGTGTTTGTCTGTAGGGTGTTAAGGACTTGAC  
TTCCTTTCTCCCATGATTCCCTCTGGACTGCACAGCACCACAACAGCCCCATGCATGCTGCTGCCTCTGGG  
AGTCGTAGAATCTCCCACTTTCAGTTTCTCGTTGATTGTAAGTACCTTTATGGAATCCAAATACATCCAAAAGGGT  
AAGGCAGTTTTAAAAATGTGAAAAACATTTAAAAATGATAATAGCAGGGAATTTCTTAGATTATAGTAAATGCCTTT  
TACTTAACTGTGCCAGCAGGCTGGGTGCGTTAAAAAGCCCAAGTATTTGAAAAAAGCTCGAACAGATTTGACAA  
GGGTAGCCAGCTTGGAGTCTAGCAACTTGCCAAATGTGTTTACCAATCTGGGGGCTGTTTTCTTTTCTTCTTTCT  
AAATAAATGGCAGTTAACTGGCTTTACAGTAAACATTGAAGAGAGGAGGATTTGTTTATTGTCACTGGGAATCTG  
ACCACTATACTGTCTTTTTTTGTATTCTGGGTAATGTTTTTGAAAAAGATTTGCTTTTTCTAAGTGAAGTTA  
AATTTGTATACTGCCCATCCCCTAAAGCCAACAGAGATTTGTAGATTTAAAGGGATCACATTTGAAGACAATAG  
TGTTTAAGAAAGCAAGCAAGTCCCTTAGCAGTCAGGTGCATACAGGGCACATTTCTGACCGAACCCCTCTCAAGGC  
AGAGGAGGAGTTTGGTGGGTTTCATACACCCTGCAGATTCTGTGGCTCTAACCCCTCAATTACCTAATCTTATG  
CTTTAACACATAACTGCATTGGATGTGAGAGTAACGTACCGTATGGTCATTGTTCTATATATTAACTTGAACAC  
TGCTGCGATTGCTCAAGGACATTTTATGTTACGGCTTTAAAGCAAAGGCATGATTATTAGAACTATTTAAGCTT  
TTTTCTTTGAAAAACAAGCTTCTTTTACAGAATATAACAACAGTAGTGCTGTGGTTTAGCCCAACCAATCTTGA  
TGACTAAAAGTAGCTGATGCATTGTGCATATGATGCTTGAGATGGTTTTTGCAAAGCAGAAATCGCTGCAAGGT  
AATCACAAATAGATAAAAGTGGTATTTTAAACCTTTGAAATAAATGGATGTAAGTGTACCTTGGTACAGCTTTTCA  
CTTGTTTAGTTTTTAAACGTTAGTATAATCTGAATAAATAAATGTTGCCAAATTCATGTAGAAAGAAATGTGAC  
AACACACCTTGGGTAGTTCTGCTTGTGTTTTGTCATATTGTAAAGCAGTGTACAGCTAAAGAGAAAGAAATCG  
TTTCTAACAGTAAATTTATGTGCTTTAGTTGCTAGTTTGTACTGAGAGTTGACCTCTCCCTGTGCAGTTTTTTGT  
CTAAACTTGATAAATAACAATTTGTGAATGTGCTCCCTCACTAGTTGAACAAATGCTTCCAGCTACGTTAT  
AAATAAAGAACCACTAGATT

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**FIGURE 280**

MFPSQIPSWKDWAKPGPYDQPLVNTLQRRKEKREPDNNGGPTTASGPPAAAAEAQRPRSMTVSAATRPGEEME  
ACEELALALSRLQLDQSRSSRSLQCSSGYSTQTTTPCCSEDTIPSQVSDYDYFSVSGDQEQEFKSSSTIP  
RNSDISQSYRRMFQAKRPASTAGLPTTLGPAMVTPGVATIRRT PSTKPSVRRGTIGAGPIPIKTPVIPVKIPTVP  
DLPGVLPAPPDGFEERGEHSPESPVGEGPGVTSMPSSMWSGQASVNPPLPGPKPSIPEHRQAIPESEADQE  
REPPSATVSPGQIPESDPADLSPRDTFQGEDMLNAIRRGVCLKKTTTNDRSAPRFS

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**FIGURE 281**

CGTCCTTCCTCAGCCGCGGGTGATCGTAGCTCGGAAATGCGGGGATTTGGTGCTATGGAGAAAAATTTTGGTAGAA  
TATAAGAGTGCAGTGGAGAAGAACTGGCAGAGTACAAATGTAACACCAACACAGCAATTGAACTAAAATAGTT  
CGTTTTCTGAAGATCTTGAAAAATGACATTAGAACTTTCTTTCTGAGTATACCCATCAACTCTTTGGGGATGAT  
GAAACTGCTTTTGGTTACAAGGGTCTAAAGATCCTGTTATACTATATTGCTGGTAGCCTGTCAACAATGTTCCGT  
GTTGAATATGCATCTAAAGTTGATGAGAACTTTGACTGTGTAGAGGCAGATGATGTTGAGGGCAAAATAGACAA  
ATCATTCCACCTGGATTTTGACAAAAACGAATGATTTCCTTTCTTTACTGGAAAAGGAAGTTGATTTCAAGCCA  
TTCGGAACCTTACTTTCATACCTACTCAGTTCTCAGTCCAACAGGAGGAGAAAACTTTACCTTTCAGATATATAAG  
GCTGACATGACATGTAGAGGCTTTCGAGAATATCATGAAAGGCTTCAGACCTTTTGTATGTGGTTATTGAAACT  
GCTAGCTTTATTGACGTGGATGATGAAAGATGGCACTACTTTCTAGTATTTGAGAAGTATAATAAGGATGGAGCT  
ACGCTCTTTGCGACCGTAGGCTACATGACAGTCTATAATTACTATGTGTACCCAGACAAAACCGGCCACGTGTA  
AGTCAGATGCTGATTTTGACTCCATTTCAAGGTCAAGGCCATGGTGCTCAACTTCTTGAAACAGTTTCATAGATAC  
TACACTGAATTTCTACAGTCTCTGATATTACAGCGGAAGATCCATCCAAAAGCTATGTGAAATTACGAGACTTT  
GTGCTTGTGAAGCTTTGTCAAGATTTGCCCTGTTTTCCCGGGAAAAATTAATGCAAGGATCAATGAAGATATG  
GCGATAGAGGCACAACAGAAGTTCAAATAAATAAGCAACACGCTAGAAGGGTTTATGAAATTCTTCGACTACTG  
GTAAGTACATGAGTGATGCCGAACAATACAGAAGCTACAGACTGGATTTAAAAGAAGACTAATTAGCCCATAT  
AAGAAAAAGCAGAGAGATCTTGCTAAGATGAGAAAAATGTCTCAGACGACAGAAGAACTGACAAACCAGATGAACCAA  
ATAGAAATAAGCATGCAACATGAACAGCTGGAAGAGAGTTTTCAGGAAGTGTGGAAGATTACCGCGTGTATT  
GAACGACTTGCTCAAGAGTAAAGATTATACTGCTCTGTACAGGAAGCTTGCAAATTTCTGTACAATGTGCTGTG  
AAAAATCTGATGACTTTAATTTTAAAAATCTTGTGACATTTTGCTTATACTAAAAGTTATCTATCTTTAGTTGAAT  
ATTTTCTTTGGAGAGATTGTATATTTTAAATACTGTTTAGAGTTTATGAGCATATATTGCATTTTAAAGAAAGA  
TAAAGCTTCTGAAATACTACTGCAATTGCTTCCCTTCTTAACAGTATAATAAATGCTTAGTTGTGAT

**FIGURE 282**

MAGFGAMEKFLVEYKSAVEKKLAEYKCNNTNTAIELKLVRFPEDLENDIRTFPEYTHQLFGDDETAFGYKGLKIL  
LYYIAGSLSTMFRVEYASKVDENFDCVEADDVEGKIRQIIPPGFCTNTNDFLSLLEKEVDFKPFGLLLHTYSVLS  
PTGGENFTFQIYKADMTCRGFRFYHERLQTFMLMFIETASFIDVDDERWHYFLVFEKYNKDGATLFAVGYMTVY  
NYYYVPDKTRPRVSQMLILTPFQCGHGAQLLETVHRYTEFPTVLDITAEDPSKSYVKLRDFVLVKLCQDLPCF  
SREKLMQGFNEDMAIEAQQFKINKQHARRVYEILRLLVTDMSDAEQYRSYRLDIKRRLISPYKKKQRDLAKMRK  
CLRPEELTNQMNQIEISMQHEQLEESFQELVEDYRRVIERLAQE

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FIGURE 283A

GAATTCGGCAGCAGGCCATTGAATCCAGTCTCTAACAGAAGTACTGCGAATCTTTGGCCCTATTCTGAACAAA  
GGGATTAGAGAAGAAAAATCTTTGATATAAGGCTTGAAAGCAAGGGCAGGCAATCTTGGTTGTGAATATTTTCT  
GATTTTTCAGAAATCAAGCAGAGATGTAGCTGCTGATGTCAGTTAGTCTTAAGTCTGAGAAAGTCGTCTCTTCAGAAAG  
GCCGGAGCCTCAACAGAAAGCTCTTTAGTTCTCTCTCCACGCCACCCACCAACGCCACCGCCACCTTTGGC  
AGACCCACACCCCCGGAGCCAGAGGAGAGATCTCTGGGATCAGATGATGAGGAGCAAGAGGACCCCTCGCGACTA  
CTGCAAAAGTGGATATCATCCAGTGAATAATGGAGACCTCTTCAATTGGCCGGTATCATGTTATTAGAAAGCTTGG  
ATGGGGCACTTCTCTACTGCTGCTGCTGTGCTGGGATATGCGAGGGGAAAGATTTGTTGCAATGAAAGTTGTAAA  
AAGTGCCCAAGCATTATACGGAGACAGCCTTGGATGAAATAAAATTTGCTCAAATGTGTTTCGAGAAAGTGATCCAG  
TGACCCAAACAAAGACATGTTGGTTCAGCTCATTGACGACTTCAAGATTTACGGCATGAATGGGATACATGTCTG  
CATGGCTTCGAAGTACTTGGCCACATCTCTCAAGTGGATCATCAAATCCAATCATCAAGGCCCTCCAGTACG  
TTGTGTGAAGAGTATCATTCCACAGGTCCTTCAAGGGTTAGATTACTTACACAGTAAGTGCAAGATCATTCTATC  
TGACATAAAGCCGGAAAAATATCTTGATGTGTGGATGATGCATATGTGAGAGAAGATGGCAGCTGAGCCCTGAGTG  
GCAGAAAGCAGGTGCTCTCTCTCTCTCTCAGGGTCTGCAGTGAATACGGCTCCACAGCAGAAACCTATAGGAAAAAT  
ATCTAAAAACAAAAAGAAAAATCTGAAAGAAAAAGAGAGGCCAGGCTGAGTTATTGGAGAGCCGCTCGCAGGA  
GATAGAAGAATTGGAGCGAGAAGCTGAAAGAAAAATAATAGAAGAAACATCACCTCAGCTGACCTTCCAATGA  
CCAGGATGGCGAATACTGCCAGAGGTGAAACTAAAAACAACAGGATTAGAGGAGCGGCTGAGGCAGAGACTGC  
AAAGGACAAATGTTGAAGCTGAGGACCGAGGAAGAGAAAGAAGTGTGAGAAAGAAACATTGAAAGAGATGAAGA  
TGATGTAGATCAGGAACCTTGGCAACATAGACCCTACGTGGATAGAATCACCTAAAACCAATGGCCATATTGAGAA  
TGGCCCATTTCTCACTGGAGCAGCACTGGACGATGAAGATGATGATGAAGAAGACTGCCAAATCTGAGGAATA  
TAATCTTGATGAGCCAAATGCAGAAAGTGATTACACATATAGCAGCTCTTATGAACAATTCAATGGTGAATTTGCC  
AAATGGAGCAGACATAAAATTCGCGAGTCAAGTTCCCGAGTTTTCCACCTCGTTGTTCTCTGGATCCCTTAGAACC  
TGTGGCCTCGCGCTCTGTGCTTTCTGAGGGATCACCCTTACTGAGCAAGAGGAGAGCAGTCCATCCCATGACAG  
AAGCAGAACCGTTTTCAGCTCCAGTACTGGGGATTGCCCCAAAGCAAAACCCGGGACGCTGACTTGTGGTGAA  
TCCCTTGGATCCCGGAAATCGAGATAAAATTAGAGTAAAAATTTGCTGACCTGGGAAATGCTTGTGGGTGCATAA  
ACACTTCACGGAAGACATCCAGAGCGCTCAGTACCGCTCCATAGAGGTTTAAATAGGAGCGGGGTACAGCACCCC  
TGCGGACATCTGGAGCAGCGCGTGATGGCATTGAGCTGGCAACGGGAGATTATTGTTTGAACACATCTCTGG  
GGAAGACTATTCAGAGACGAAGACCACATAGCCACATCATAGAGCTGCTAGGCAGATTTCCAAGGCACCTTGC  
TCTATCTGGAATAATTTCTCGGGAATTTCTTAATCGCAGAGGAGAACTGCGCAGCATACCAAGCTGAAGCGCTTG  
GAGCCTCTTTGATGTACTTTGTGAAAAAGTATGGCTGGCCCATGAAGATGCTGCACAGTTTACAGATTTCCGTGAT  
CCCGATGTTAGAAATGGTTCCAGAAAAACGAGCCTCAGCTGGCGAATGTCGGCATCTTGGTTGAATTTCTAGCA  
AATTTACCAATATTGCAATCTGAGCTAGCAAAATGTTCCAGTACATTGGACCTAAACCGTGACTCTCATCTTTT  
AACAGGATTACAAGTGAGCTGGCTTTCATCTCAGACCTTTATTTGCTTTGAGGTACTGTGTTTGACATTTTTC  
TTTTTGTCAGTGTGATCTCTGGGAAGGGTAGTCTTTTGCTTTCAGCTAAGTAGTTTACTGACCATTTTCTCTG  
GAAACAATAACATGTCTCTAGCATTTGTTCTTTGTTGTTGTGACATTTCAAATGTCAATTTTTTGAATGAAAAAT  
ACTTTCCCTTTTGTTGTTTTCGAGGTTTTGTAACATATTATAGAAGAAATATTTAGCTGAGTACTATAATTTA  
CAATCTTAAGAAATATCAAGTTGGAACCAAGAAATAGCAAGGAAATGTACAATTTATCTTCTGCAAGAGGGAC  
ATCATCTCTGTATATAGTGTATGTAATGCACCCTGTAATGTTACTTTCCATTAATATGGGAGGGGACCTCA  
AATTTCAAAAGCTTCAACAGCTTGAGTGCTTTTGACCTATGTCAGTGTAGCGGACTTTAAGCTGCTCAAGG  
AGTTGTGCAAACTTTTCATTCCTAACAGTCTTTTCACATTGGATTTTAAACAAAGTGGCTCTGGGTATAAGAT  
GTCATTTCTATATGGCCTTTAAAGGAAGAAAAAGATATGTTTCTCATTTCAAATATGCAATATAATTTACAG  
TCCATTTGTGATTTTGCAATTTTAAAGTACTTTTAAAGAGAGCAATTTCCCTTTAAAAATGTGATGGCTC  
AGTACCATGTCACTGTTGCTCCTCTGGGCGCTGTAAGTTAAGCTCTACATAGATTAATTTGGAGAAACGTGTTAA  
TTGTGTGGAATGAAAAATACATATAATTTTGGAAAAAGCATGATCACTGCTGTCTGAACACAGGATGTGGTATA  
TACAAATTTGCAGTGCAGTGGGAGCAATCTTCTACAGCTCAAAAGATAACAGTGATCACAATTTCCATAGGTA  
GCTTTACGTGTGGCTTACACAAATTTTACTAGCTTTTCATTGTCTTTCCATGAAACGAAGTGTGAGAAATGATT  
TTCCCTTTGCGAGTTGCACACAGTTTTGTTTATGCAATTTCCCTAAATTAATTTAGATAGCTCCAGGATACAAACCA  
TAGTAGGCAATACAAATTTAGAATGTAATATATAGAGGTATATTAGCCTCTTTAGAAGTCAGTGGATTGAATGTCT  
TTTTATTTTAAATTTTACATTTCAATTAAGGTGCCTCGTTTTGACTTTGTCCATTAAACATTTATCCCATATGCTTTT

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**FIGURE 283B**

GCAATAACTAGATTGTGAAAAGCTAACAAGTGTGTGTAACAATAATCCATTGTTTGAGGTGCTTGCAGTTGTCTTA  
AAATTAAGTGTTTGGTTTTTTTTTCCAGAAAAAAAAAAAAAAAAAAAAAAAAAAATTCCTGC



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**FIGURE 284**

MSVNSEKSSSSSERPEPQQKAPLVPPPPPPPPPPPLPDPTPPEPEEEIILGSDDEEQEDPADYCKGGYHPVKIGD  
LFNGRYHVIRKLGWGHFSTVWLCWDMQGKRFVAMKVVKSAQHYTETALDEIKLLKCVRESDDSDPNKDMVVQLID  
DFKISGMNGIHVCMVFVGLGHHLLKWI IKS NYQGLPVRCVKSIIRQVLQGLDYLHSHCKIIHTDIKPENILMCVD  
DAYVRRMAAEFEWQKAGAPPPSGSAVSTAPQQKPIGKISKNNKKKKKKKKQKQAEELLEKRLQEIEELEREAEK I  
IEENITSAAPSNQDGEYCPEVKLKTITGLEEAAEAETAKDNGEAEDQEEKEDAENIEKDEDDVDQELANIDPT  
WIESPKINGHIENGPFSLQQQLDDDEDDDEEDCPNPEEYNLDEPNAESDYTYSSSYEQFNGELPNGRHKIPESQFP  
EFSTSLFSGSLEPVACGSVLSEGSPLTEQEESSPSHRSRTVSASSTGDLPAKTRAADLLVNP LDPNRNDRKIRV  
KIADLGNACVWHKHFTEDIQTRQYRSIEVLIGAGYSTPADIWSTACMAFELATGDYLFEPHSGEDYSRDEDHIAH  
IIELLGSI PRHFALSGKYSREFFNRRGELRHITKLKPWSLFDVLVEKYGWP HEDAAQFTDFLIPMLEMVPEKRAS  
AGECRHPWLNS

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FIGURE 285

CCGGTGC GCCCGGCGGAGCGCGCTGCTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTC  
CTCGCGGGGATTAAAGTTGGAATTTGACCGGAGAATTGAGTTGCCGGGGAAACAGAGCCCGGGCGCGCCAGAGC  
**GATGTT**CCCCGAGAGCCCGGACCCGACCGCCAGCAGGCTGCAGGCCACGCCCTTCAAGTTCACTATCCCCGGAGTC  
CCTGGACCGGATTAAGAGGAATTCACGTTCTTCGAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAACT  
GGCAAGTGAAAAGACAGAAATGCAGAGGCACATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAAT  
GCACAAACAGACTGAAATCGCCAAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTTCTGTCTCAGGAACA  
TCAACAACAGGTGGCCCGAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAAATGGCCATCATCTGGGCA  
GCAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCTTACGCCCTACCCCTTCGGGACT  
TCAGCCTCCTGGAATCCCCGCCCTTCGGGGGCGAGTGCCGGCCTCTTTGCGCTGTCCAGTGCCTGTGAGTGGGCGAGTC  
TCACTTGGCAATAAAGATGACAAAGAACACACAGATGCAGAGCACCACAGAGACAGAGAGCCGGGCAACAAGTAA  
TTCCCTCTGTGTCAGACAGTCTAAGAGGCAAGATAAACGCAGAAATGGACCTGAAATTTTCCAATGACATCAA  
GAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACTTAGTTGT  
GGATGTGTCTAATGAGGACCTCTCTTCCGCGAGCAAGCCCTGCCCACTCGCCCCGGGAAAAATGGAATCGACAA  
AAATCGCCTGCTAAAGAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAA  
ATCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCAGCGCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGA  
CATGCCAAGCGCGGGCACCGCGGCTCCAGGCTCCGTCAGGTTCTCGGCAAGCTTCCAGCATAGACCCCTCT  
CGTTAACCAAGCGGCGAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCATATCTCTGCTCCTTTTGGGATGGT  
CCCCACGCTGAGCTGAACGGCGAGCTGACCAGCCAGGCGCTGCTACGCCAGTTTACACAACATGTGACCCCA  
GATGAGCGCGCAGCGCGCGGCGCGCGCTGCTGCGCTACGGGCGCTCCCCATGGTGGGTTTGATCTCTCCCC  
TCACATGAGAGTACCTACCATCTCTCCAAACCTTGGCAGGAATCCTTGGGGGAAACCTGCATACCTCTTCCACGT  
TACTGCAGCGGTGAGATGACAGCTGTCCTTTTCCCCCGACGCGCTCATCGGACCCGGAATCCCTCCGCGCATG  
TCGCCAGATCAACCCCTCAACCAGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACGAGACAGCTGTA  
CACAGGCGGGAAGGGCTCGCTCAAGGCTTGGGACATCAGCCACCTTGGCAATAAGAGGCCCTGTCTCCAGCTCGA  
CTGCTTGAACAGAGACAATTATATCCGTTCTGTAAATTGCTACCCGATGGCTGCATCTCATAGTGGGAGGGGA  
AGCCAGTACTTTGTCCATTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCTCTCGGCCCC  
CGCCTGCTAGCCCTTGGCCATCAGCCCCGATTTCCAAGGCTGCTTCTCATGCTGCAGCGAGCGGAACATCGCTGT  
GTGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTGT  
TAATGATGGCACCAGCTCTGGACGGGTGGTTTGACAAACACAGTCAAGTCTGGGACCTGCGCGAGGGGCGGCA  
GCTGCAGCAGCAGCACTTCACTCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGAGTGGCTGGCATGGG  
CATGGAGAGCAGCAATGTGGAGGTGCTGCAGTGAACAAGCTTGACAAGTACCAGCTGCACCTGCATGAGAGCTG  
CGTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAGAAATGAACTTCTCAATGCTGT  
GCGGACCCCCATGGAGCCAGCACTTTCAGTCCAAAGAGTCTCGTAGTGTCTAGCTGTGACATCTCTGTGGA  
TGATAAGTACATAGTCAGTGGCTCGGGGACAAAGAGCTACAGTCTATGAAGTCATCTACT**GAAA**AACATTATGT  
GGTTTAACGTTTATAGTTGAATTGGGCCAAATGTTTCGAATTTATAGAAATAGAAAAAGTTGTAACCTTTAAAGA  
GAAAAAAATTACAAACCTGTTTCCAACCTTGACAGAAAACTACTTTGAGTCTACAAAGAGGAGGGCGACAAG  
TCCATCAGCAGAAAGTCACCTGTCTACATAGACAAATGGAGCACCAGGCCAAGCGGACAGAGGGGCCATGGGT  
TGTAGGATTGAGGAACGGAATCTGCGGACTACATGACAGCCCATCTTCTTCTTCTGGGTGATCTGGGGATCACG  
CCTTCCGCAAGTGTGAGATTACCTTTCTGTTCTTCGAGTTCACTCACTTTCCGCTCTTTGTAGAGCAGTGGT  
TCTCCAATGAACTTGTTCCTGGTTTTCATCTTGTGAAATGTTTTTTGTATTTTGTGTAAGGTTTAAACATTT  
GTATAAATGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 286**

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM  
HKQTEIAKRLNTICAQVIPFLSQEHQQVAQAVERAQVTMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPFSGL  
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHHDAEHHRDREPGTNSNLLVPDSLRTDKRRNGPEFSNDIK  
RRKVDDKDSSHYDSGDGKSDNLVVDVSNEPSSPRASPAHSPRENGIDKNRLLKKDASSPASTASSASSTSLK  
SKEMSLHEKASTPVLKSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGPYPAFFGMV  
PHAGMNGELTSPGAAYASLHNMSFQMSAAAAAAVVAYGRSPMVGFDPPPHMRVPTIPPNLGIPGGKPAYSFHV  
TADGQMOPVFPFPDALIGPGIPRHARQINTLNHGEVVCVAVTISNPTRHVYTGGKGCVKVWDISHPGNKSPVSQLD  
CLNRDNYIRCKLLPDGCTLIVGGEASTLSIWDLAAPTPIKAELTSSAPACYALAI SPDSKVCFSCCSDGNIAV  
WDLHNQTLVRQFGHTDGASCIDISNDGTKLWTGGLDNTRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG  
MESSNVEVLHVNKPDKYQLHLHESCVLSLKFA YCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD  
DKYIVTSGSGDKKATVYEVY

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FIGURE 287

GGCACGAGGAGGAGAAGACAAAGAAAAGCAGTCCGCTCGGATTGTGTTGCCAGGACTGGCGCCGCGCAGCGGG  
ATCGCCGAGGGGAGTGCGGTCGGAGTCAACCGCGCCCGCCTCCCGCCCGGGCAGCTGAGGCCGGGGGTGGAG  
CGCTGCCCGCCGCGCAGCTCCCGAGCGCCGACGCTTCCGCGCAGGTTCTTGAAGCAGCTGGGCTGGGGCGCC  
CACTAATGTGGCCCTGAGGGCCGAGCCCGCACCAGCGGAGCCGGAGCGAGCTGCGGGCCCGCAGTGGC  
CGGTGCGCCCGCGGAGCGCGCTGCGTGGCCAGCGCGCTCCCGCTTCTGCTTGGCTTTCGGGCTTAATTTTC  
TCGGCGGGATTAAAGTTTGAATTTGACCGGAGAATTGAGTTGCCGGGAGACAGAGCCCGCGCCGCGCCAGAGCG  
**ATG**TTCGCCGAGAGCCGACCCGAGCGCACCAGGCTCGAGGCCAGCCCTTCAAGTTCACTATCCCTCCGGAGTCC  
CTGGACCGGATTAAAGAGGAATTCAGTTCTCTGAGGCGCAGTATCACAGCCTTAAATTTGAATGTGAGAACTG  
GCAAGTGAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAATG  
CACAAACAGACTGAAATGCCAAGGATTGAATACGATTGTGCAAGTCACTCCATTTCTGTCTCAGGAACAT  
CAACAACAGGTGGCCAGGCTGTTGAACGTGCCAAACAGGTGACCATTGCGAGAGTTGAATGCCATCATCGGCAG  
CAGCAGTTGCAAGCTCAGCATCTTTCTCATGCCCAGGACCCCGAGTTCCTTACGCCTCACCCCTTCGGGACTT  
CAGCCTCTTGGAATCCCGCCCTCGGGGCGAGTGCCTTCTTGGCGTGTCTAGTGCTCTGAGTGGGCGAGTCT  
CACTTGGCAATAAAGATGACAAGAAGCACACGATGCAAGAGCACAGAGAGCAGAGCGGCGACAAGTAAT  
TCCCTCTCGTCCCAGACAGTCTAAGAGGCACAGATAAACCGCAGAAATGGACCTGAATTTTCCAATGACATCAAG  
AAAAGGAAGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGAACAAAGAGGAGTGAACACTTGTGTG  
GATGTGTCTAATGAGGACCTTCTTCTCCGCGAGCAAGCCCTGCCACTCGCCCGGGGAAAATGGAATGCACAA  
AATCGCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCAGCGCTCTCGGCAAGTTCCTTTTGGAA  
TCCAAAGAAATGAGCTTGGATGAAAGAGCCAGCAGCGCTGTTCTGAAATCCAGACACCAACGCCCTCGGAGCGAC  
ATGCCAACCGCGGGCACCAGCGCCATCCAGGCGCTCGTCCAGGTCTCGGCAAGCTCCAGCCATAGACCCCCCT  
GTTAACCAAGCGCAGCTGGCTTGAGGACACCCCTGGCAGTGGCCGCCCATCTCTGCTCTTTTGGATGGTC  
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCCAG  
ATGAGCGCCGACGCGCGCGCGCGCTGGTGCGCTACGGGCGCTCCCCCATGTGTGGGTTTGAATCCTCCCGCT  
CACATGAGAGTACCTTACCATTCTCTCAAACTGGCAGGAATCCCTGGGGGAAACCTGCATACCTCTCCAGGTT  
ACTGCAGAGCGTCAGATGCAGCTGTCCCTTTTCCCCCGACGCCCTCATCGGACCGGAAATCCCCCGCATGCT  
CGCCAGATCAACACCTCAACCAACGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACAGACACGTGTAC  
ACAGCGGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCCTGGCAATAAGAGCCCTGTCTCCAGCTCGAC  
TGCTGAACAGAGACAATATATCCGTCTCTGTAAATTTGCTACCCGATGGCTGCACCTCTCATAGTGGGAGGGAA  
GCCAGTACTTTGTCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGCGGAGCTGACGTCTCTGGCCCC  
GCCTGCTACGCCCTGGCCATCAGCCCGGATTCCAAGGTTCTGCTTCTCATGTGTGACGCGAGCGCAACATCGCTGTG  
TGGGATCTGCACAACAGACAGTACTAGTGAGGCAATTCAGGGCCACACAGACGAGGCCAGCTGTATTGACATTTCT  
AATGATGGCACAAGCTCTGCAGCGGTGGTTTGGACAACACAGTCAGGTCCTTGGGACCTGCGGAGCGGGCGGAG  
CTGCAGCAGCAGCACTTCACTCTCCGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGGC  
ATGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCACTGCACCTGCATGAGAGCTGC  
GTGCTGTCCCTGACTTACTTGGTGGTAAATGGTTTGTAGTACTGGAAAGATAACCTCCTCAATGCTTGG  
CGGACCCCTATGGAGCCAGCATATCCAGTCCAAGAGTCTCTGTCAGTGCTTAGCTGTGACATCTCTGTGGAT  
GATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACTGAACACATTATGTG  
GTTTAAGCTTTATAGTTTGAATTTGGGCGAAAATGTTTCAATTTATAGAAATGAGAAAGTTGTAACCTTAAAGAG  
AAAAAAATACAAACACCTGTTTCCAACCTTGACAGAAAACACTCTTTAGTCTACAAGAGGAGGCCACAAGT  
CCATCAGCAGAAAGTCACCTGTCTACATAGACCAAAATGGAGCACCAGGCCAAGCGGACAGAGGGCCATGGGTT  
GTAGGATTGAGGAACGGAACTCTGCCACTCACATGACAGCCCATCTTCTTCTTCTGGGTACTCTGGGATCACGC  
CTTGCCCAAGTGTGAGATTACCTTTCTGTCTTGCAGTTCACCTCACTTCCGTCCTTTGTAGAGCGTGGTGT  
CTCCAATGAACITGTTTCTGTGTTTTCATCTTGTGAAATGTTTTTTGTATTTTTTGTGAAGGTTAAACATTG  
TATAAATGTAAATATATTGGTTTATATACAGTAAGGCTTTAGTACCAATAAAAAAGGAAAAA

**FIGURE 288**

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQLQAQYHSLKLECEKLASEKTEMQRHYVMYEEMSYGLNIEM  
HKQTEIAKRLNTICAQVIPFLSQEHQQVQAQAVERAQVITMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPFSGL  
QPPGI PPLGGSAGLLALSSALSGQSHLAIKDDKKHDAEHHRDREPGTNSNLLVPDSLRLGTDKRRNGPEFSNDIK  
KRVDDDKDSSHYDSGDGKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLLKKDASSSPASTASSASTSLK  
SKEMSLHEKASTPVLKSSPTIPRSDMPTPGTSATPGLRPLGKPPAIDPLVNQAAAGLRTPLAVPGPYFAPFGMV  
PHAGMNGELTSPGAAYASLHNMS PQMSAAAAAAVVAYGRSPMVGFDP PPHMRVPTIPPNLAGIPGGKPAYS FHV  
TADGQMOPVFPFPDALIGPGIPRHARQINTLNHGEVVCVAVTISNPTRHVYTGKGCVKVWDISHPGNKSPVSQLD  
CLNRDNYIRSKLLPDGCTLIVGGEASTLSIWDLAAPTPIKAELTSSAPACYALAI SPDSKVCFSCCSDGNIAV  
WDLHNQTLVRQFQGHIDGASCIDISNDGTLWTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG  
MESSNVEVLHVNKPDYQLHLHESCVLSLKFAYCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD  
DKYIVTSGSGDKKATVYEVY

**FIGURE 289A**

CTACTACAGTGGCGGACGTACAGGACCTGTTTCTACTGTGGGGGATCCAAAACAAGCCCGTGGAGCAACAGCCG  
GAGCAACAGCAGCTGCAGCAAGATGTTTCTCTCCCTCTGCGCCCCCTCCCCACGCAACCCGACATTTACAT  
CTTTACAGTTTTCCTTCAAAAATCAAGCAGCAACCAAGTCCCTGATGAAAGAGAGATCGTGCACTCAAGTC  
ACCGAGGTGTGTCATTCAAGCTGCAGATTTGTTTGTCATCTTGTACAGCAATCTCTCTCCATCGCCATACA  
GGGAAGTGCATCACAATGTCAGCATATCGGAGCATGTGAAAGAGCTATTTTGAAGCTTCAAATTTAGTGCTGCT  
GCAGACGAGGACAAGAGAGAAGATGGATTTCAGGCTGCACGGATGCTTTGAACAACAAGATGGTTTGTGCT  
TAGGGGTTTACACTGATGTTTCTCACTGCCACCCCTTTCTACTACGAAATAATCTCTGTGAAAGATATGCTGCA  
AGGAATGATAGCTTTATGTTTCTCCATTGTGATGAAGACACATGGTACAGTTTTCGAAGAAATAGACAACTT  
TCTCTGTGAAGAAATCGACGCTGTGTTTTCATAGGTTATTTCTACTTCTGTGAAAGGAAAGAAGAACAC  
CCTGAGGCCCAAGAGCCCTCAGGAGCCCTCAGAGCGCTGGGAAGATCTCATGTGTGAAGTATAGGCTAGGCTAC  
TGTGAACAGTACGAGTGAATTTTATCTTCCAGAGCTGCTGTGTGGCGAATGTGATCCACGGGGAGATGATTTCTCA  
TGAAGAGCTGGATTCCCTCAGAGAAATCAAATGTGACTTTCGTTTATCAGACTAAATCAGAGCCATCCAGACA  
GTGAACAGCTACCGTGGAGGGGGGAGCGGCAAAATGACATCAACCAAGGAGCGGAGCAACGAATGTCCGCTCT  
CCAGAAGCGCGGAGATCCCGCCACCGCGCTCTCCGAGGAGAAGGACCTACCTCTGCCACGCAACCAACCC  
GGGTGGAGGGCAGCATGGCTCCCGGGCAACCCTGTGTGGCCGGGGCCACGGGGCGGAGGCATGGCCGGCAG  
GGACCTCGGTGGAGCTGTGTTTACAAAGGGAATAGTTTACAAAGAGATTTCCACAGGGCTGGACATCTCCC  
CGCCAGGCGTCCAGGTTGTGTCCCGTGGCCACACGCTCGTCCGGGTATGCCACCCCGCAGCCAGGAAACC  
CGGTGTCCCGGTGCAGTACGCTCACTTGGCGCACACTTCCAGTTCTATTGGGTCTTCCCAATAGAGTGAACCT  
ATGGCAGCTTCTATCCATCAGACGTGATCCCCCAACCGCCACACCCCTCACCATGCGTTCAGTCTGGCCGCG  
AGCCACCACTCTCATCCAGGCGCTCCAGCTCGGAGGCTATTACACTCTGTGGCCAAATGGGAGCTCGAGCC  
AGACGCGGGGACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC  
AGC  
CCCCCCACAGCCGAGCAGAACCAAGTACGTCAACATTTTCAGTTTCTCGCAGAACACCGGCCGACCGCTCTC  
TCTCGGGCATCCCGCTCACTCTCAACCCACAGCAGATCTTCCCAACAGCTCACTCTGGGGCCCCCTCCC  
AGTCTGCTATGCAATACGCCGACTCCCGCAGCCACTTGTCTCTTGGCAGGCCAACGAAGAGCTGAGAGAGCC  
GGCTGCAGCAGGCCATCTCAGGCCAAGGAGGTCTTGAACGGTGTGATGGAGAAGAGCCGGCGGTACGGGGCCCCG  
TCTCAGCGCACCTGGGCTGTGGCAAGGCAGCGGAGCAATGGGTTCTTCCACCGTACAGATCAGGCAGCTGGTG  
TCCACAGGACGCCCTCAGACTACAGAGTGTGATCTTCTGGGTTCCGGGCTCTGTGATGTCTTGCCAAACA  
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCTGTAAGCTCTCCCTTCACTCTCAACGACA  
AAAGTGGCTTCGATTTAGGGAAGCTTGGCCACGGCTTCTACGCGTCTCAACCCCAACCGGTCTATCAGACACAC  
ACAGTGGCTTAGAGCACACTCCGGTGGGAGTGCAGCAGCGCCCTCTACGAGGAGCATACCCCTTGTATCTG  
GCTACCTGAGCGGCCAGCAGCAAGCAATCACTACGCGCGGACGGCTGCCACGACACTGTGTGATCTCCCGGACA  
AGCCCTCTGCTCATCCGGCTCGGCACAGCTGACATGTGAAGCGCTCGGGGGCAGCCCGGCATATGCTCATCC  
CCAGTTTGTGTGACGTGCTACAGCTGTGTCACACCGCCCTTCCAAGAGCGAAGATCTCAACCTTAGGGCCC  
TGCTCAGCAGGCGCCTCAGCAGGCAATGTGTGACGGCCAGATCCACTGCTGTGTGTCAGTCTCGTGGCTCCC  
CGGGCGGGCTCCCCCTACGCTGCTCTCCATTTCAAGAGGCTCCATCATCCAGTTGGCACGCGGGAGCTAA  
AGAAGGTGAAGACTTAAACACAGAAGATTTCATCAGAGTGCAGAGATTAAGCAACGACCTGAAGATCGACTCA  
GCCAGGTAGAGGAGATTGAAGACGCAATAGCCCGGGGCTGGCGTGTACATGATTCGCCGTGGGAGACCCAG  
CCACAGGTACGCTTGAAGTTTGTGATGATATCTTTTGTGTTTGAACAGGGGTGGTCACTTCTGCTGCCG  
AGAAACACGACGAGCTTTTGAATTGCGGTGTTCAAACCTCTAGTTGGGGATGTCTGCATCTCGCTTACCTCA  
AGAACCTGAAGAAGCGGCTGTGTTAAAGAGGCCAGCGGTGGATCCCGCAGCGCTCTGTGTGAAGCATCAAGG  
CGACGGGCTCGGGCGGTCAGGACAAGGATATGCGCAGCGAAGAAACGAATCAACAGGGGAGTGCCCAAGTGC  
TCTCTGAGATGGCGAATGAAGTTTCCAGAGAAATGGGATTGCTGTGACGCGCCCTTCTCACCAAAATAGAAC  
CAGCAGCGCCCGGGCAGCAGGAAGAGAGGTGTTGCGGCCGACAGAGCGCCGAATCGGAGAGTTCAGAAGAG  
AACCCCTTTGACTTCTTCAAGCTTCTCTTAATCTTCCAGAGGTTAAGATTGCAATGAAGCGGCTGTAAATG  
TAGGCAAGTGAAGGACGCTGGGGGAAAGAAACGTGGCTCTCCCTTATGATTTGATTCAGATATCTGATCTA  
AGGCTAAATATACAGTATTTACATGTTATCTTCTTAATTTTAGTTTCTGTGTTAACTTGTATCTGATAGT  
CAGAGGTTGTGTCGAGAGAGCTGGTGCATATGCTTTTCCAGAGTGTCTGTGAGTGAAGCGGGCGGAGGAAG

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FIGURE 289B

GCACAGCAGGAGCGGTACAGGGCTCCAGGCATCCCGGGGAAGAAAGAACGGGGCTTCACAGTGCCTGCTTCTC  
TAGCGGCACAGAAAGCAGCCGGGGCGCTGACTCCCGCTAGTGTGTCAGGAGAAAAGTCCCGTGGGAAGAGTCTGCA  
GGGGTGCAGGGTTGCACGACTGTGGGGGTGCACAGGCGCTGTGGCGGCAGTGAGGGGTCTCTTTTCTGCTGCTC  
CCTCGCTCTCTCTTGTCTATCGGCATGGGCGGGGGGTTTCAGAGCAGTGTCTCTCTGGGGTCCACAGTGC  
AAAATCAACATCAGGAACCCAGCTTCCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAAGTTAACCAT  
TAAAGAACAATTTTCTCTCAACATATTTTACAATAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT  
ATGGGGCTGACTGCAGCTGATATATTTTAAAGAGCAACTGCCACATCGGGGATTTCACTTCTGCTTTT  
ACTAGTGCAGGATGTCACCAAGGTGTGTGTGGTGGACAGGGAAGCCCTGTGTGTCAGCCCATGAGGGTAAAG  
GGGGTTGGGGTGGGGGAGAGGAGAGAGCAACCCACGCTGTTTCTGTGCAGTGTAGGAAAAACCAATCA  
GGTTATTGCAATTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCAG  
TTAGTTTGGCAAACTCTTTTGTCTTTGAACCTCTAGTACTGTTTATAGTTCATGACTATGGCAACTCGGGTGCC  
ACTTTTTTTTTTTCAGATTCAGTGTGACATGAGGAATTAGATTTTGAAGATGACATATATTACTATCTTTAA  
GCATTTAAAAAATGTTTCCACATTTATTACCAAGCATCTTGGTCTCTCAATTCACAAAGTACTGTATCTCACTTT  
AAACTCTTTGGGGAAAAACAACAAAAAATAAGTTGCTTCTTTTTTCAACACTGTAACTACATTTCA  
GCTCTGCAGAAATGCTGAAGAGCAAGATATTGAAGTTTCAATGGGTTTAAAGGGATGAATGTGAATATGAAC  
TAGTATGTGACAAATAAATGACCACCAAGTACTACCTGACGGGAGGCATTTTCACTTTGATGCTGAGAAATCAGT  
TCAAGGCATATGCAGAGTTGGCAGAGAACTGAGAGAAAAGGGATGGAGAAAGAGAACTACTATTTTGTCCAGTG  
CTCTGTACAAAAAGCCAGGCTTTCAGCGGGCTCTTGAAGAACTTGCAGTTTGCACATATTGAGTTTAACTTGTGTGATATCC  
TGCAGTTTTTATCCAATAACATTTGTTGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGAGCAAAATTTT  
TTTCTAACCTGCTTAACTCTAGGCCATTTTATAAGTTATGTTCTCTTGAAGAAATCACTTTGGTCTTTTACCA  
CATCTGTACAAAAAGCCAGGCTTTCAGCGGGCTCTTGAAGAACTCTGAGAAATTTCTTCAGATTCATTGAGAGAGT  
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTAAACAATTACTTTATATTGTTGTTATTAATGTT  
ATTTTCAGAATGGCTTTTTTCTTCTTATCCAATAAATAAGCGAGATTTAATGTTTGGTACAAACCCAGAAAGGTA  
TTTCTAGATTTTTTAACTTTTCAATCCAGAGATCCGAAATATCAATTTGGGTTTTGAATGCTATTTTAAAGTG  
CTTTAAAAAAGTTTATATAGTAGGAGAAATTTTAAATATCTTACTTGGATGGCTGCAACTAACTGAACA  
AATACCTGACTTTTCTTTACCCCATTTGAAATAGTACTTTCTTCTGTTTCACAAAATAAAAAATACTGGTAT  
CAACCCACATTTTGGCTGTCTAGTATTACATTTACATTTAGGTTTACCAGGACTAATGATTTTTTATAACCGTTT  
TCTGGGGTGTACCAAAACATTTGAATAGGTTTGAATAGCTAGAATAGTTCTCTGACTTCTCTCGAATTTCAAT  
ACCTCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATCTTGCAGTCACTAGCTTATTTAGTGTCTGATTTTT  
TTAAACGTTTCTGTTTCAGAGAATTTGCTTAATCTTCCATATATTTCTGCTCAGGGCACTTGCAATTTATAGGTTTT  
GTTTTCTTTTGTGTTTTTATGCTTTTGTAGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA  
TCACTATTTTCAACTCTGTGGACTCAGAAAACACACACCACCTTTTGGCTTACTTCGATTTGAATGACTG  
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATATAATTTTGTG  
GTTCTATTTTCAGGTATAGGAATATAAAATAATGGTTCTTTTAAACACTTGTCCCATTTCACTCTCTGCTTT  
TTAGCATTTGCAATTACTTTCTGTGGCAATAGACTGTGACAGTGTGCTATATAGTTAAAGCTCATTCCTTTTG  
GCTTTTCTCTGTTTGGTTGATCTTCCCATCTTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGAGAGA  
GCCTCCCACCTTTCCCTGTGCGGATGTGTAGTGTGTTGGGCGGGGAGCCTTCAGGAGCCCGTGCCTGCGGCG  
CAGCTTGCAGAGAGCCAGCAAGGAGACCCGGGGGAGAACCCAGTGTCCCTGTCCACCAACCGGAATAGTG  
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTTCTAAGACGCACCTCTGGAGCCATGTAGCCTGGAGTCAAC  
CCATTTTCCACGGTCTTTTCTGCAAGTTGGGAGGCCCTCTCGGGGTGTGTTCTGTAGACTTGGAGCCCTGCTG  
CTCTGAGCCTGGACGGGAAGTTGTGGCTGTGTGTGTGTCGTTCTGAGCGTGTGTGGCCAGTGGCTGTGGAGGGG  
ACCACCTGCCACCCACGCTCACCATCCCTTGTGCGAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG  
AGCTCTCTGTGTGGCGAGCTTGTGGGCGCCGAGGCTCCAGAGCAGCTCTGTCAACCGCTTCTGTGTAGCAAC  
ATTAACTGATGACAGGGGTAGAAATTTCTCGGTGCCGTTCACTTACAAGGATCAGCCATGTGCTCTGTACTATG  
TCCACTTTGCAATATTTACCGACAGCGCTCTTTGTCTCTTCTTCTGTTTCCATTTTAACTAGTAAACAGC  
AGGCCTTTTGGCTTTTACAATGGAAACAATACCAAGAAATTAGTCAGGGCGAAAAGAAAAATAGTACTATTA  
ATAAGAAACCAACAACAAGAACCTCTCTTCTAGGGATTTCTAAATATATAAATGACTGTTCTTGAATGTT  
TAACCTAAGAAATTTTTCAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGAGGGGATACAGAGATGGATGC

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FIGURE 289C

CACCTTACCTCAGATCTTTTAAAGTGAAAAATCCAAATTTGAATTTTCATTGTGGACTTTCAGGATAATTTTCTATGTT  
GGTCAACTTTTCGTTTTCCCTAACTCACCAGTTTAGTTTGGGATGATTTGATTTCTGTTGTTGTGATCCCAAT  
TCTAACTTGGAAATTTGAGAGCTCTATGTTTCTGTTAGGTGAGTGTGTTGGGTTTTTCCCCCCACAGGAAGTG  
CGAGCATCCCTCCTCTCCCTCAAAGGGACTCTGCGGAACCTTTCACACCTCTTTCACAGGACGGGGCAGGTGT  
GTGTGTGGTACACTGACGTGTCCAGAAGCAGCAGCTTGTGCTGCTGGAGTAGGGTGTACAATTTCAAGGAATG  
TTTGGATTTTCCTGCATCTTTGGGATTACTCCTTAGATACCGCATAGATTGCAATATAATGCTGCATGTTCAAGAT  
GAACGATAGCTCCTAGTAAATATAAAATCCACTCTTTGCACAGTTTGTATCTTTACTGAAATATGTTGGCCAAAT  
TATTTTTGTGTGTAGCTCTGGATTTTGTGTTTGTGTTTTTAAGGAAACGATTGACAATACCCCTTAACAT  
CTGTGACTACTAAGGAAACCTATTTCTTTCATAGAGAGAAAAATCTCCAATGCTTTTGAAGACACTAATACCGTG  
CTATTTTCAGATATGGGTGAGGAAGCAGAGCTCTCGGTACCGAAGCCCGGCTCTTGAGCTGTGTTGGTTGTCAT  
GGCTACTGTTTCATGAACCACCAAGCAGCTCAACAGACTGGTCTGTGGCTTCTGAACCCCTTTGCACCTCAATTT  
GCACCAGGTGAAACAGGGCCAGCAGACTCCATGGCCCAATTCGGTTCCTCGGTGGTGTGTAAGGAGAGAA  
TTACACTTTTTTTTTTTTAAAGTGGCTGGAGGCCCTTGTCTCCACATTTGTTTTTAAACCAGAATTTCTGAAAT  
AGAGAATTTAAGAACACATCAAGTATAAATATACAGAGAATATACCTTTTTATAAGACATGCATCTGCTATT  
GTGTGGTGGTTGTTCTCTCTCTTTCCACGGACAGTGTGTGTTTCTGCGATAGGGAATCCAAACCACTTGCA  
CACCTCTACTCCGGAGCTGAGATTTCTTTACATAGATGACCTCGCTTCAAATACGTTACCTTACTGATGATAGG  
ATCTTTTCTGTAGCACTATACCTTGTGGGAATTTTTTTTAAATGTACACCTGATTTGAGAAGCTGAAGAAAAAC  
AAAAATTTGAAGCACTCCTTTGAGGAGTACAGGTAATGTTTTAAAAAATTGCAAAAAGAAAAATGAATGTCGA  
AATGATTCATTCAAGTGTGAAAGATATGGCTCTGTGAAACAATGAGTTTCATACCTTTGTTGTAAAAA  
AGCAGAGAAGGGTGAAGATGTACATGTTTTTGTATATAGAATTTGTCATGCTTAAATGATCAGATTTGTATG  
GTTATGGCCTGGAAGAATTTACAGTAAAGGCTCTTAACTATACCTATGCTTATGTTGTTATTTGTTACATAT  
AGCCCTCGTCTGAGGAGGGGAACCTCGGTATTCTGCGATTGAGAATACCTGTTCAATCCATGCTGAAAGTACTT  
CTCTGAGCTCCCTTCTTAGTCTAAACTCTTAAGCCATTGCAACTCTTTTTCTTCAGAGATGATGTTTGACATTT  
TCAGCACTTCCTGTTCTATAAACCCCAAGAATATAATCTTGAAACACGAAGTGTGTAACAAAGGGATCCAGGCT  
ACCAATCAACAGGACTCATTATGGGGACAAAAAATTTATTTCCACTCTTCTCCCCCACACCTCATT  
TAAATGGGGGGAGTAAAAACATGATTTCAATGTAATGCCTCATTTTATTTTATTTGATTTTATTTTATTTA  
ATATAAAGAGGCCAGAATAAATACGGAGCATCTTCTCAGAATAGTATTCCTGTCCAAAAATCAAGCCGGACAGTG  
GAAATCGGCAGCTGTGGGGATATTAGCACCCCACTTACAATTTCTAAATTCAGAATCTCGTCCCTCCCTCT  
TCGTTGAAGCCAACGTGTTCTGTAGCTAACTTTCTCCTGTGTAATGGCGGAGGAAACCCGGCTTCAGTTTCTT  
ATGTCCTCATGACTTGCATACAAATGGTTCAACTGTATTAAAAATTAAGTGCATTTGGCCAATAGGTAGTATCTAT  
ACAATAACAACAATCTCTAAGAATTTCCATACTTTTCTTATCTGAAAGAGCTCAAGTCTTCCACTGCAGATACA  
TTGGAGGCTTCAACCACGTTTTCTTTCCCTTTAGTTTGTGCTGTCTGGATGGCAATGAGCCCTGCTCTCTTT  
CTGTGGCCAATCTGAAGGCCCTCGTTGGAAGTGTGTTTCACAGTAATCCTTACCAAGATAACATACCTGCTCCCA  
GAATCAACAGTATTAGGTGACACTAGCTCAAGCTGTTGCTTTCAGAGCAGTTACCAAGAAGCTCGGTGACACAGGT  
TTCTCTGTGTTCTTACAGGAACCACTACTCTTTCAGTTTTCTGGCCAGGAGTGGGTAACCTTTAGTATGTT  
GCATTTGAACCTTGGTACCTGTGCATTCAAGTTCTGTGAATACCTGCCCTTTTGGCGGGGTTTCTCATCTCCCCAG  
CCTGAACCTGCTCAACTCTAAACCCAAATTAGTGTGAGCCGAAAGGAGTTTCAAGATGCTTCTGTCAGTATTTGT  
GGTGACCTTCAGATAGCAGTCTTCAATTTCCAGCCAGTGAGTCTGGCTCCAGAGCCATCTCTGAGACTCCGT  
ACTACTGGATGTTTAAATATCAGATCATTACCACCATATGCTTCCACAGGCCAAGGAAAAACAGACACAGAA  
CTTGGGTTGAGGGCACTACCAGCTGACATGCGCCAGTACAGAGGAGAACTAGGGAAGGAATGATGTTTTCACCT  
TATTGAAAAAGAAATTTAGATGCATACATAATAGTTAAGAGCTTTTATTGTGACAGGAGAATTTTTTCCATAT  
GCGTGCATACCTCTGTAATTCAGGTGTAATAATTTGACTTGCATAGCTTTTTTAAACCAATATTAATAAATG  
GAAGAATTCATATTTCTATTTCTTAATCGTGGTGTCTATTTGTAGGATACACTCGAGTCTGTTTATGAAATTT  
ATGGTCCCTTTCTTTGATGGTGTGTCAGGTTTTCTAGGTAGAATTTATTTCAATATTATAATAAACCAATGTTT  
GATTCAAAATTTGAACAAAATTTGTTTTAAATAAATTTGCTGTATACAGGTACAAGTTTATGTTTCAGTATACCT  
GTACTATAAAAAATACAGTGCCAAATTGCAAAAAA  
AAAAAAAAA



**FIGURE 290**

MKSNQERSNECLPPKKREIPATSRSSSEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGRRHGHPAGTSVELGLQQGI  
GLHKALSTGLDYSPPSAPRSVPVATTLPAAAYATPQPGTPVSPVQY AHLPHTFQFIGSSQYSGTYASFIPSQLIPP  
TANPVTSAVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQHQQQQQQQQQQQQQ  
QHLSRAPGLITPGSPPPAQNQYVHISSSPONTGRTASPPAIPVHLHPHQTMIPTLTTLGPPSQVVMQYADSGSH  
FVPREATKKAESSRLQQA IQAKEVLNGEMEKSSRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD  
PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGHLHGKPGHRSYALSPHTVIQTTHSASEPLPVGLP  
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT  
TALPKSENFNPEALVTQAAYPAMVQAQIHLPVVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFI  
QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPPFFVFGQGWSSCCPERTSQLFDLP  
KLSVGDVCISLTLKNLKNKGSVKKGPVDPASVLLKHSKADGLAGSRHRYAEQENGINQGSQAQLSENGELKFPEK  
MGLPAAPFLTKIEPSKPAATRKRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVVGK

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FIGURE 291A

CTACTACAGTGGCGGACGTACAGGACCTGTTTCACTGCAGGGGGATCCAAAAACAGCCCCGTGGAGCAACAGCCA  
GAGCAACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCTTCCCCACGCAACCCAGATCCATTTCACA  
CTTTACAGTTTTACCTCAAGAACTACTACAGACCAAGCTCCCTGATGGAAAGGAGCATCGTGCAATCAAGTC  
ACCAGGGTGGTGCATTCAAGCTGTCAGATTTGTTTGTCTATCCTGTACAGCAATCTCTCTCTCCAGCTGCCACTACA  
GGGAAGTGATCACAATGTGTCAGCATACTGGAGCATAGTGAAGAGTCTATTTTGAAGCTTCAAACCTTAGTGCTGCT  
GCAGACAGCAGGAACAAGAGAGAAAGAGTGGATTTCAGCCTGCACGGATGGTCTTGAACACAAATGTTTTTGGTC  
TAGCGGTTTTACACTGAGATTCTCCACTGCCACCTTTCTACTCAAGCAAAATCTTCTGTGAAAAGATCTGCTGCA  
AGGAACTGATAGCTTATGGTTCTCCATTGTGATGAAGCACATGGTACAGTTTTCCAAAGAAATAGACCATTTTT  
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTTATAGGGTATTTTCTCACTTCTCTGTGAAGGAAGAAAGAACAG  
CTTGAGCCCAAGAGCCCTCAGAGGCCCTCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC  
CTGTGAACAGTACGCAGTGAATGTTTATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTTCTCTCA  
TGAAGAGCCTGGATCCCCACAGAAATCAAAATGTGACTTTCCGTTTATCAGATAAAATCAGAGCCATCCGACACA  
GTGAAACAGTCAACCTGGAGGGGGGACGGCGAAATGAAATCCAAACCAAGAGCGAGCAACGAATGCGTGGCTC  
CCAAGAACGCGCAGATCCCCGCCACCGCGGTCTCCGAGGAGAAGGCCCTACCTGCCCCAGGACAAACACCC  
GGGTGGAGGCGACAGCATGGCTCCCGGGCAACCTTGGTGGCCGGGGCCAGGGGGCGGAGGATGGCGCGCAG  
GGACCTCGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTGCCAGGGCTGGACTACTCCC  
CGCCACGCGCTCCAGGCTCTGTCCCGTGGCCACCAAGCTGCCTGCGCGGTACGCCACCCCGCAGCCAGGGACCC  
CGGTGTCCCCCGTGCACTACGCTCACTGCGGCACACCTTCCAGTTTCAATGGGTCTCTCCAAATACAGTGGAACT  
ATGCCAGCTTATCCCATCAGCTGATCCCCCAACCGCCAAACCCGTCACAGTGCAGTGGCTCGGCCGAG  
GGGCCACCACTTCCATCCAGCGCTCCAGCTGGAGGCTTATTCACCTTGTGTGGCCAACATGGCGAGTCTGAGCC  
AGAGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC  
AGC  
CCCCCCCCACCCAGCAGCAGAACAGTACGTCACATTTCCAGTTTCTCCGACAGAACCCGGCCGACCCGCTCTC  
CTCCGGCCATCCCCGTCACCTCCACCCACAGACAGATGATCCACACAGTACACCACTTGGGGCCCTCCCTCC  
AGGTCTGTCATGCAATACGCCGACTCGGCGAGCCATTTTGCTCCCTCGGAGGGCCCAAGAAAGCTGAGAGCAGC  
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCTGAACGGTGAGATGGGAAGAGCCGGCGGTACGGGGCCCGCT  
CCTCAGCCGACCTGGGCTGGGCAAGGCGGCGCAAGTCTGGTTCTCACCCTGACGAGTCCAGGCACGTGGTGG  
TCCACCCGAGCCCTCAGACTACAGCAGTCTGTATCCTTCCGGGGTCCGGGCTCTGTGATGGTCTCGCCAAACA  
GCAACACCGCCGCACTGACTGGAGGTGCAACAGGCCACTCATCGTGAAGCTCCCTTCTACCTCTCAACGACA  
AAAGTGGCTGCATTTAGGGAAGCCTGGCCACCGGTCTACGCGCTCTCACCCACACGGTCATTAGACCACAC  
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCAGGCTCTTACGCGAGGACTCAACCCCTGTCTATCG  
GCTACTTGAGCGGCGCAGGAGCAAGCAATCACTACGCGGCGAGCTGCCACGACACTGTGTGATCTCCCGGACAC  
AGCCCCGTCTATCCCGGTGGCGAGCACTGACATGGAAGCGTCCGGGGCAGCCCCGGCCATAGTCAGCTCATCCC  
CCGAGTTTGTCTGAGTGCTCTACACGTTTGTGTCACCCGCGCTTCCCAAGAGCGGAACTTCAACCTGAGGCC  
TGGTACCCAGGCGCTACCCAGCCATGGTGACAGCACTCCACTGCTGTGGTGCACTCGGTGGGAGCCAGG  
CGGGCGGGCTCCCCCTACGTGCTCTCTACTTTCATGAAAGGCTCCATCATCAGTTTGGCCAAACGGGGAGCTAA  
AGAAGGTGGAAGACTTAAAAACAGAAGATTTATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATGACTCCA  
ACACCTGAAGAACCGCTCTGTGTTAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCTGCTGAAGCACTCAAAGG  
CCGACGGCTTGGCGGGCAGCAGACAGGTATGCCGAGCAGGAAACCGGAATCAACACGGGGATGCCAGATGC  
TCTCTGAATATGGCACTGAACTTTTCCAGAGAAATGGGATTGCTGTGAGCGCCCTTCTCACCAGAAATAGAAG  
CCAGCAAGCCCGCGCAACGAGGAAGAGGAGGTGGTGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAAGAGCAG  
AACCACCTTTGACTCTTCTAAGCCCTTCTTAATTCCTCAGGAGGTTAAGATTGCAATTGAAGGCCGGTCTAATG  
TAGGCAAGTAGAGGCACTGGGGGAAAGAAAGCAAGCTGGCTCTCCCTTATCATTGTATCAGATGCTACTGT  
AGGCTAAAAATAACACAGTATTTACATGTATCTTCTTAATTTTAGGTTTCTGTCTTAACCTTGTCTATAGAGTTA  
CAGAGGCTGTGCGCAGGAGACTGGTGCATATGCTTTTTTCCACGAGTGTCTGTCTAGTGAGCGGGCGGAGGAAGG

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FIGURE 291B

GCACAGCAGGAGCGGTACAGGGCTCCAGGCATCCCCGGGGAAGAAAGAACGGGGCTTCACAGTGCCTGCCCTTCTC  
TAGCGGCACAGAAAGCAGCGGGGGCGCTGACTCCCGCTAGTGTTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA  
GGGGTGCACGGGTTGCACGATATGGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTCTCTGCCCT  
CCTCTGCCCTCACTCTCTTGCTATCGGCATGGGCGGGGGGGTTCGACAGCAGTGTCCCTCTGGGGTTCGCCAGGTG  
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAGTTAAACCAT  
TAAAGAAACATTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAAATGTATAGATATATATTTCCCCCT  
ATGGGGCTGACTGACCTGATATATATTTTAAAGAGCAACTGCCACATCGGGGATTTTACTTGTCTTTT  
ACTAGTGCAGCGATGTCAACAGGGTGTGTGGTGGACAGGGAAGCCCCGTGTCTATGGCCCCACATGGGGTAAG  
GGGGGTTGGGGTGGGGGAGAGGAGAGGCAACCCACGCTGGTTTCTGTGAGCTTATGGAACCAATCA  
GGTATTGCACTTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGTGAGCAACAGAGCTCTTCAG  
TTAGTTTGGCAAACTCTTTTGTCTTTGAACCTCTAGTACTGTTATAGTTTCATGACTATGGACAACCTCGGGTGC  
ACTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA  
GCATTTAAAAAATCTGTTTACACTTTTATTACCAAGCATCTTGGTCTCTCATTTCAACAAGTACTGTATCTCACTTT  
AAACTCTTTGGGGAAAAAACAACAAAAAACTAAGTTGCTTTCTTTTTTCAACACTGTAACTACATTTTCA  
GCTCTGCAGAAITGCTGAAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGATGAATGTGAATATTGAAC  
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACITTTCACTTTGATGTCTGAGAATCAGT  
TCAAGGCATATGCACAGTTGGCAGAGAACTGAGAGAAAAGGGATGGAGAAGAGAATACACTATTTTGGCAGTG  
TTTTCTTTTTTAAGATGAACTTTTAAAGAACCTTGCATTTGACATATTGAGTTTATAACTTGTGTGATATTCC  
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTT  
TTTCAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCCCTTTGAAAAATTCATTTGGTCTTTTACCA  
CATCTGTCACAAAAAGCCAGCTCTTAGCGGGCTCTTGAACACTCGAGAATTTTCTTCAGATTCTGTAGAGAGT  
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTAAACAATTACTTTATATTGTTGTTAATGTT  
ATTTTCAGAATGGCTTTTTTTTCTATTCAAAATCAAATCGAGATTTAATGTTTGGTACAACCCAGAAAGGTA  
TTTCAAGTTTTTAAACCTTTTACTTCCAGAGATCCGAAATCATTTTGTGGGTTTGAATGCATCTTTAAAGTG  
CTTTTAAAAAAGTTTATAAGTAGGGAGAAATTTTTAAATATCTTACTTGGATGGCTGCAACTAACTGAACA  
AATACCTGACTTTTCTTTTACCCTATTGAAATAGTACTTTCTCGTTTCACAAATTAATAAAAAAATCTGGTAT  
CAACCCACATTTTGGCTGTCTAGTATTCTATTACATTTAGGGTTCACCAAGGACTAATGATTTTTATAACCGTTT  
TCTGGGGTGTACCAAAAAACATTTGAATAGGTTTGAAGTAGCTAGAATAGTTCCTTGACTTTCTCGAATTTTCATT  
ACCTCTCGACATGCTTGCAGAGAGCTGGGTGGGCTCATCTTCCGTCTATCTGAGTCTATTAGTGCTGATTTT  
TTAAACGTTTCTGTTTCAGAGAATCTGCTTAATCTCCATATATTCTGCTCAGGGCACTTGCATTTATTAGGTTT  
GTTTTCTTTTGTGTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCTTAATA  
TCATATTTACAACTTGTGGACTCAGAAAACACACACCACTTTTGGCTACTTCGAGTATGAATGAACTGACTG  
GATCCACTAAACCAACACTAAGATGGGAAAACACATGTTTGGAGCAATAGGAACATCATATAATTTTGTG  
GTTCTATTTTCAGGTATAGGAATATAAAAAATTTGGTTCTTTTCAACACTTGTGCCATTTCTTCTCTGCTTT  
TTAGCATGTGCAATACTTTCTGTGCCAATAGACTCTGACCAGTGTGCTATATAGTTTAAAGCTCATTTCCCTTTG  
GCTTTTCTCTGTTTGGTTGATCTTCCCATCTTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGAGAGA  
GCCTCCCACCTTTTCCCTGTCTCGGATGCTGAGTGCTGGGCGGGGAGCCTTCAGGAGCCCCGTGCGCTCTGCCCG  
CCTGTGAGAAAGAGCCAGCAAGGAGACCCGGGGGAGAACCGCAGTGTCCCCTGTCAACACAGGAATAGTG  
AATGTGGAGTGTGGAGAGGAGGAGGAGCATTCATTCTTAAGACGCACCTCTGGAGCCATGTAGCCTGGAGTCAAC  
CCATTTTCCACGCTCTTTCTGCAAGTGGCGAGGCCCTCTCGGGGCTGTGTCTCTGAGACTTGGAGCCCTGCG  
CTCTGAGCCTGGACGGGAAGTGTGGCTGTTGTGTGTGCGTCTGAGCGTGTGGCCAGTGGCTGTGGAGGGG  
ACCACCTGCCACCCAGCGTCAACCTCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAAGCCAGAGAGGGCAGG  
AGCCTCTGTTTTCAGACGTTTGGCGGGGCCGAGGCTCCAGAGCCCTCTGTCAACCGCTTCTGTGTAGCAAC  
ATTAACGATGACAGGGGTAGAAATCTTCGGTGGCGTTCAGTTTCAAGGATCAGCCATGTGCCCTGTGACTATG  
TCCACTTTGCAATATTTACCGACAGCGCTCTTTGTCTTTCTTTCTGTTTCCATTTTTAACTAGTAACACG  
AGGCCTTTTGGCTTTTACAATGGAACCAATCACCAGAAATAGTCAGGGCGAAAGAAAAAATAATACATTA  
ATAAGAACCAACAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAATGACTGTTCTTGAATGTT  
TAACCTAAGAAATATTTCAGTTTGTCTGGGCCACACTGGGCGAGGGGGGAGGGAGGATACAGAGATGGATGC

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FIGURE 291C

CACCTACCTCAGATCTTTTAAAGTGGAATCCAAATTGAATTTTCATTTGGACTTTCCAGGATAATTTCTATGTT  
GGTCACTTTTCGTTTTCCCTAACTCACCAGTTTGTGTTGGGATGATTGTATTTCTGTGTGTTGTTGATCCCAT  
TCTAACTTTGGAATTTGTGAGCTCTATGTTTTCTGTTAGGTGAGTGTGTTGGGTTTTTCCCCCACCAGGAAGTG  
GCAGCATCTCCCTCTTCCCTAAAGGGACTCTGCGGAACCTTTCACACCTCTTTCTCAGGAGCGGGCAGGTGT  
GTGTGTGGTACACTGACGTGTGCCAGAAGCAGCACTTTGACTGCTCTGGAGTAGGGTGTACAATTTCAAGGAATG  
TTTGGATTTCTCGATCTTTGTGGATTACTCCTTAGATACCCGATAGATTGCAATAATGCTGCATGTTCAAGAT  
GAACAGTAGCTCCTAGTAATCATATAAATCCACTTTTGACACAGTTTGATCTTTACTGAAATATGTTGGCAAAAT  
TATTTTGTGTGTGTAGCTCTGGAATTTGTTTGTGTTTTGTTTTAAAGGAACGATGACAATACCCCTTTAACT  
CTGTGACTACTAAGGAACCTATTTCTTTCATAGAGAGAAAATCTCCAAATGCTTTTGAAGACAATAATACCGTG  
CTATTTCAGATATGGGTGAGGAAGCAGAGCTCTCGGTACCGAAGGCCGGGCTTCTTGAGCTGTGTGGTTGTCT  
GGCTACTGTTTCATGAACCAACAGCAGCTCAACAGACTGGTCTGTGCTCTGTAACCCCTTTGCATCTCAATTT  
GCACCGGTGAAAACCGCCAGCAGACTCCTTGGCCCAATTCGGTTTCTCGGTGGTGATGTGAAGGAGAGAA  
TTACACTTTTTTTTTTTTAAAGTGGCGTGGAGGCCCTTGTCTCCACATTTGTTTTTAAACCAGAATTTCTGAAAT  
AGAGAATTTAAGAACACATCAAGTAATAAATATACAGAGAATATACCTTTTTATAAAGCAGATGCATCTGCTATT  
TGTTGGGTTGGTTTCCCTCTTTTCCACGGACAGTGTGTGTTTCTGGCATAGGGAACCTCAAAACCACTTGCA  
CACCTCTACTCCGGAGCTGAGATTTCTTTTACATAGATGACCTCGCTCAAATACGTTACCTTACTGATGATAGG  
ATCTTTCTTGTAGCACTATACCTTTGGGGAATTTTTTTTTAAATGTACACCTGATTTGAGAAGCTGAAGAAAA  
AAAATTTTGAAGCACTCACTTTGAGGAGTACAGTAATGTTTAAAAAATTGCAAAAAGAAAATGAATGTCGA  
AATGATTCATTCAGTGTTTGAAAATATGCTCTGTTGAAACAATGAGTTTCATACCTTTGTTGTAAAAA  
AGCAGAGAAGGGTTGAAAGTTACATGTTTTTGTATATAGAAATTTGTCATGCTAAATGATCAGATTTGTATG  
GTTATGGCCTGGGAAGAAATTACTAGTAAAAGGCTCTTAAACTATACCTATGCTTATTTGTTATTTGTCATAT  
AGCCCTCGTCTGAGGGAGGGGAATCGGTATTTCTGCGATTTGAGAATACGTGTCATCTCCTATGCTGAAAGTACT  
CTCTGAGCTCCCTTCTTAGTCTAAACCTTAAAGCCATTGCACTCTTTTCTCAGAGATGATGTTTGACATTT  
TCAGCACTTCTGTTGCTATAAAACCCAAAGAATATAACTTTGAACACGAAGTGTGTTGAACAAGGGATCCAGGCT  
ACCAATCAACAGGACTCATATGGGGACAAAAAATAAATTTATTCACCTCTTTCCCCCACCCTCAAT  
TAAATGGGGGAGTAAAAACATGATTTCAATGTAATGCCTCAATTTATTTAGTTTTATTTGATTTTTATTTA  
ATATAAAGAGGCCAGAATAAATACGGAGCATCTTCTCAGAATAGTATCTCTGTCAAAATCAAGCCGGACAGTG  
GAACTGGACAGCTGTGGGGATATTAAGCACCCCACTTACAATTTCTAAATTCAGAATCTCGTCCCTCCCTCT  
TCGTTGAAGCACTGTTCTGGTAGCTAACTTTCTCTGTGTAATGGCGGAGGAAACACCGGCTGCATTTTTTC  
ATGTCCTCATGACTTGCATACAAATGGTTCAACTGTATTAATAATTAAGTGCAATTTGGCCAATAGGTAGTATCAT  
ACAATAACAACATCTCTAAGAATTTCCATAAATTTCTTATCTGAAGAGACTCAAGTCTTCCACTGCAGATACAT  
TTGAGGCTTCCACCCAGTTTTCTTCCCTTAGTTTGTGTTGCTGCTGAGGCAAGTGGGGTAAATCCTTTAGTTAGT  
GCAATTTGAACCTGGTACCTGTGCACTCAGTTCTGTGAATACCTGCCCTTTTGGCGGGGTTTCCCTCATCTCCCCG  
CCTGAACTGCTCAACTCTAAACCCAAATTAGTGTACGCCAAAAGGAGGTTTCAAGATAGCTCGTGCAGTATTGT  
GGTGACCTTCAGATTAGACAGCTTTTATTTCCAGCCAGTGGAGTCTGGCTCCAGAGCCATCTCTGAGACTCCGT  
ACTACTGGATGTTTAAATATCAGATCATACCACCATATGCCTCCCACAGGCCAAGGGAAAAACAGACACAGAA  
CTTGGGTTGAGGCCACTACCGACTGCATGGCCAGTACAGGAGAACTAGGGAAGGAATGATGTTTGTGCACT  
TATTGAAAAGAAAAATTTAAGTGATACATAATAGTTAAGAGCTTTTATGTGACAGGAGAACTTTTCCATAT  
CGGTGCATACTCTCTGTAATTCAGTGTAAAAATTTGTACTTGCACTAGCTTTTTTTAAACAAATATTTAAAAATG  
GAAGAATTCATATTTCTATTTCTAATCGTGGTGTCTATTTGTAGGATACACTCGAGTCTGTTTATGAAATTT  
ATGGTCCCTTTCTTTGATGGTGCTTGCAGGTTTTCTAGGTAGAAATTTATTCATATATATAATAAACAAATGTTT  
GATTCAAAATTTGAACAAAATTTGTTTTAAATAAATTTGCTGTATACCAAGTACAAGTTTATTTGTTTCAGTATACT  
GTACTAATAAATAACAGTGCCAAATTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAA

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**FIGURE 292**

MKSNQERSNECLPPKKREIPATSRSEEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI  
GLHKALSTGLDYSPPSAPRSVPVATTLPAAAYATPOPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP  
TANPVTSAVASAAGATTPSQRSQLEAYSTILLANMGSLSQTPGHKAEQQQQQQQQQQQHQHQQQQQQQQQQQQ  
QHLSRAPGLITPGSPPPAQONQYVHISSSPQNTGRTASPPAIPVHLHPHTIMI PHTLT LGPPSQVVMQYADSGSH  
FVPREATKKAESSRLQQAQIQAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD  
PSGVRASVMVLPNSNTPAADLEVQQATHREASPTLNDKSGHLHGKPGHRSYALSPHTVIQTTHSASEPLPVGLP  
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT  
TALPKSENFNPEALVTQAAYPAMVQAQIHLPPVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFI  
QSAEISNDLKIDSSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVLEVLYEYFFVFQGWSSCCPERTSQLFDLPCS  
KLSVGDVCI SLTLKLNKNGSVKKGPVDPASVLLKHSKADGLAGSRHRYAEQENGINQSSAQMLSENGELKFPEK  
MGLPAAPFLTKIEPSKPAATRKRWRSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVGK

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**FIGURE 293**

GGCGAATGGAGCAGGGGCGCGCAGATAAATTAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT  
 GGTGGCTCATGCCATATAATCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTTCAGAGC  
 CAGCCTGGTGCCTTGGCATCTCCCAATGGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCTCT  
 GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGAGGAGCCCACTGCGCTCTCCGATCTCCGATCAGGACATCTC  
 TACTTGGCAGTGGAAGATGAATGTGTCCCAAAATTGCAGCACCAGAGCTCCGCCTGTGTACCACTGGTTTTTCT  
 GCTCTCCGAAGCCACACAGTGTATCCCTGAGAACAACGGAGGCGGGGTGCGTGTGCCACCTGCTCATGGATGA  
 CGTGGTCAGTGGCGGATAACTATACACTGGACCTGTGGGCTGGGCAGAGCTGCTGTGTGAAGGGCTCTCTCAAGCC  
 CAGCGAGCATGTGAAACCAGGGGCCAGGAAACCTGCAGATTACACCAATGTCTCCGACACTCTGCTGTGCAG  
 CTGGAGCAACCCGTATCCCCGTGACAATTACCTGTATAATCATCTACCTTACAGTCAACATTTGGAGTGAAAA  
 CGACCAGGAGATTTACAGATCTTACAGCTGACCTACCTAGAACCTCCCTCCGCATCGCAGCCAGCACCTTGAA  
 GTCTGGGATTTCTTACAGGCGCAGGGTGAGGGGCTGGGCTCAGTGTCTATAACACCACTGGAGTGAGTGGAGCCC  
 CAGCACCAAGTGGCAACCTCTACAGGGAGCCCTTCGAGCAGCACTCTCGCTGGGCGTCAAGCTTTCTCTGAT  
 TGTACTCTGGCCGTCTGCTGTGTGTGCTATGTGACGATCACCAAGATTAGAAAAGATGTTGGGATCAGATTCC  
 CAACCAGCCGCGCAGCCGCTCTGTGGCTATAATAATCCAGGATGCTCAGGGGTACAGCTGGGAGAACGGGCTCCCG  
 AGGCCAGGAACCAAGCAAGTGGCCACACTGGAAGAAATTGTCTTACCAAGCTCTTCCCTGTTTTTCTGGAGCAAA  
 CATGAAAAGGGATGAAGATCCTCACAGGCTGCCAAAGAGATGCTTTCCAGGGCTCTGGAAAAATCAGCATGGTG  
 CCCCAGTGAGATCAGCAAGCAGTCTCTTGGCCAGAGAGCATCAGCGTGGTGGCATGTGTGGAGTTGTTTGGAGC  
 CCGGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAGGGAGCTTCTGTGCATCCGCTGAGAGCAGCAG  
 GGATGACTTCCAGGAGGGAAGGGAGGGCATTTGTGCCCGGGCTAACAGAGAGCCTGTCTCTGGACCTGCTCGGAGA  
 GGAGAAATGGGGGCTTTTGGCAGCAGGACATGGGGGAGTCAATGCTTTCCACCTTCGGGAAGTACGAGTGTCTCA  
 CATGCCCTGGGATGAGTTCCTCAAGTGCAGGGCCCAAGGAGCACTCCCTGGGCGAAGGAGCCACTCTCCACCT  
 GGAGCCAAAGTCTCTCTGCCAGCCGACCCAGAGTCCAGACAACCTGACTTGCACAGAGACGCCCTCGTCTATCG  
 AGGCAACCCCTGCTTACCGCAGCTTCAGCAACTCCCTGAGCCAGTCCCGTGTCCAGAGAGCTGGGTCAGAGCC  
 ACTGCTGCCAGACACTGGAGGAAGTAGAACCCGAGATGCTCCCTGTGTCCCCAGCTCTCTGAGCCAAACCACTGT  
 GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCTCTCGCCGAAATGTCTTCCAGCATGGGGCAGCTGCAGCCCC  
 CGTCTCGGCCCCCACTAGTGGCTATCAGGAGTTTGTACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCCTG  
 GGTGGGCTTGGGTCCCCAGGAGAGGCTGGTTACAAGGCCCTTCTCAAGCTGCTTGCAGCAGTGTGTGTCCCC  
 TAGGAAATGTGGGTTTGGGGCTAGCAGCTGGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATCTCTGGCTGCC  
 TGGGGAGCCCTGCCAGTCCCTGTCCCTTGTTCACCTTTGGACTGGAGAGGCCACTTCGCATCCGCGAGAG  
 CTCACATCTCCCAAGCAGCTCCCCAGAGCACCCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC  
 CCCACTTCCCCAGGAGCAGGCCACAGAGCCCTTGTGGACAGCCTGGGCAGTGGCATTTGCTACTCAGCCCTTAC  
 CTGCCACCTGTGGCCGCACTGAAACAGCTGTATGGCCAGCAGGATGGTGGCCAGCCCTGTGATGGCCAGTCC  
 TTGCTGTGGCTGTGTGTGTGGAGACAGGTCTCGCCCCCTACAACCCCCCTGAGGGCCAGACCCCTCTCCAGG  
 TGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCTCCCTGGCACCTTCGGGACTCTCAGAGAGATGAATAACCTCT  
 ATCATCTTCCATCTCGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCAAAATCGTGAACCTTTGTCTCCGT  
 GGGACCCACATACATGAGGGTCTCTAGGTGCATGTCTTGTGTGTGAGTCTGCAGATGAGGACTAGGGCTTA  
 TCCATGCTTGGGAAATGCCACCTCTTGAAGGCCAGCCAGGCTGGCAGATTCCCAAAAGACTTGAAGAAGCAATCT  
 ATGAAGGTGATTGGCCCCACTGAGCTTGGCCCTAACACTGGGCTGCAGAGACTGGACCCCGCCAGCATTTGGGCTG  
 GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTCCCCAGCGGAGCCCTTGCAGGAAAACTGAG  
 GCCCTTGGGCACCTGCAGTTGTGAACGAGTTGTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTTGGCTGTCT  
 GTAACGTGCCAAAGGCATGTTTTGCCACCAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTCACTGAAC  
 TAGAAGCCGAGCTAGAAACTAACACGCCATCAAGGGAATGACTTGGGCGGCTTGGGAAATCGATGAGAAAT  
 GAACCTTACGGAGGGTGGTCACTTGCTTAGAGGTGCTCATTCATTAAACAGAGCTCTTATAGTTGATGCTGGAG  
 CAGAAATCCCGGCTGTCAAGGGGTGTTCAAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGTATGACTAAAGCA  
 GGGACAATTTGCTGCCAAACACCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCAAGAA  
 AATATGCTAGCCACCCCTGTGGGCGGGGCACTCAGACAGCAGGCATAAAGCCAGCTTACCTCGATGTTGGC  
 CCAGACCTCAGGTGCTAGGGAAGCGGGAACTTGGGTTGAGTAATGCTCGTGTGTGTTTTAGTTTTCATCAAC  
 GTTATCTGTGTTGTCTGAGGAGAGTGGACAGAAGGGGTGGAGTTTGTATATAAATAAGTTTCTTGTCTC

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**FIGURE 294**

MGWLCSGLLFPVSCVLVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNPGTNCSTELRLLYQLVFLLEAHTCI  
PENNGGAGCVCCHLLMDDVVSADNYTLDLWAGQQLLWKGSEFKPSEHVKPRAPGNLTVHTNVSDTLTLLTWSNPYP  
NYLYNHLYAVNIWSENDPADFRIYNVTYLEPSLRIAASTLKSGISYRARVRAWAQCYNNTWSEWSPSTKWHNSY  
REPFEQHLLLVSVSCIVILAVCLLCYVSITIKKEWWDQIPNPARSRLVAIIQDAQGSQWEKRSRGQEPKACP  
HWKNCLTKLLPCFLEHNMKRDEDPHKAAKEMPFQGSKGSAWCPVEISKTVLWPESISVVRCELFEAPVECEEEE  
EVEEEKGSFCASPESRRDFQEGREGIVARLTESLFLDLLGEENGGFCQDDMGESCLLPPSGSTSAHMPWDEFFS  
AGPKEAPPWGKEQPLHLEPSPPASPTQSPDNLTCTETPLVIAGNPAYRSFSNSLSQSPCPRELGPDP LLARHLEE  
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHAAAAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPGE  
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPVPLFTFGLDREPPRSPQSSHLPSSSP  
EHLGLEPGEKVEDMPKPLPQEQATDPLVDSLGSIGIVYSALTCHLCGHLKQCHGEDGGQTPVMASPCCGCCCGD  
RSSPPTPLRAPDSPGGVPLEASLCPASLAPSGISEKSSSSSFHPAPGNAQSSSQTPKIVNFVSVGPTYMRVS

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**FIGURE 295**

ATTGAGTGTCTCCGGAGAACAGACCCGCGCCCGCGCTCCGCGAGCCTCCCGAGAGCCGTCCTTCGTCCGGCCC  
TGGAGCATTGCGTTTGTGCGCCGGTGTGCGCAGTGCAGGATGGCGCCGCGGGTGTAGCGGCTCTCTGCGCAGGCCG  
AGTGGGCCCAGAGAAGCGAGGAACCCCCAGATCGCCGACACGTCTCGTCTCCTGTCCCAATTCAGGGCTTGGTG  
AGGTGACTCGCGGTGCGGGTGACTCGCCGGCAGGACACTGCCTGGAACGCCTGGAGCGCCTCCCACTGCAGACG  
TCTGTCCGCCTCCAGCCGCTCTCCTCTGACGGGTCTGCCTCAGTTGGCGGAATGGCGGCCACGGGAGCCAATGC  
AGAGAAAGCTGAAAGTCACAATGATTGCCCGTCAGACTTTTAAATCCAAACATAGCAAAAATGAAAGAAGATAT  
TCTCTATCATTTTCAATCTCACCACCTAGCAGACACAATTTCCAGCCTTGTTTGGAGATGTGAAGTTTGTGTGT  
TGGTGAAGCCCTCCCGGATGAAAGCCTTCATCAGGTGCGTTGGTGCAGAGCTGGGCCTTGACTGCCAGGTAG  
AGACTATCCCAACATCTGTGCGGGAACCTGACCGCTATGCCATGTATAAAGTAGGACCGGTGCTGTCTGTCAGTCA  
TGGTATGGGCATTCTTCTATCTCAATCATGTTGCATGAGCTCATAAAGCTGCTGTACTATGCCCGGTGCTCCAA  
CGTCACTATCATCCGCAATTGGCACTTCTGGTGGGATAGGTCTGGAGCCCGGCACGTGGGTATCAACAGAGCAGGC  
AGTGGATACCTGCTTCAAGGCAGAGTTTGAGCAGATTGTCCTGGGGAAGCGGGTCATCCGGAACCGACCTTAA  
CAAGAAGCTGGTGCAGGAGCTGTTGCTGTGTTCTGCAGAGCTGAGCGAGTTCACCACAGTGGTGGGGAACACCAT  
GTGCACCTTGGACTTCTATGAAGGGCAAGCCGCTCTGGATGGGGCTCTCTGCTCCTACACGGAGAAGGACAAGCA  
GGCGTATCTGGAGGCAGCCTATGCAGCCGGCGTCCGCAATATCGAGATGGAGTCTCGGTGTTTGC CGCCTATGTG  
CAGCGCCTGCGGCCTCCAAGCGCCGTGGTGTGTGTACCCCTCCTGAACCGCCTGGAAGGGGACCAGATCAGCAG  
CCCTCGCAATGTGCTCAGCGAGTACCAGCAGAGGCCGCGAGCGCTGGTGAGCTACTTCATCAAGAAGAAACTGAG  
CAAGGCCTGAAGCGCTGCCCTGCACCTCCGCAGACCTGCTGTGATGACTTGCCATTAAGCATTGTCCAAACCC



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**FIGURE 296**

MAATGANAEKAESHND CPVRLNPNIAKMKEDILYHFNLTTSRHNFPALFGDVKFVCVGGSPSRMKAFIRCVGAE  
LGLDCPGRDYPNICAGTD RYAMYKVG PVL SVSHGMGIP SISISIMLHEL IKLLYARCSNVTIIRIGTSGGIGLEPG  
TVVITEQAVDTCFKA EFEQIVLGKRVIRKTDLNKKLVQELLCSAELSEFTTVVGNMCTLD FYEQGRLDGALC  
SYTEKDKQAYLEAAYAAGVRNIEMESSVFAAMCSACGLQAAVVCVTLNRLLEGDQISSPRNVLSEYQQR PQLVS  
YFIKKKLSKA

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**FIGURE 297**

GGCAGAGGGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTGCGACAGCAACCCCTGCTGGGCCGAAACTG  
GGCAGAGCGGAGCAGACGTCTGAAGCAGCGCAGTAGTGAGGCGCGAGGGTAGCGCCCGCGCCGGGAAGACCCCTCG  
GCGCAACCGGCAGCCAGCCCGGGTCCCGGTTCCCAAGGCCCGCCTCTAGGGCCTGGGGACTAATCGGATTG  
AGAGCGCGCCGGCCCGGGCCGCAACTCGCCAATTGCGGAGGGCGGTGGCCACCGCCAATCCGGAGCAGACAGG  
TGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGCGGTTGCGACCTGCTGGGGCAGGTCTCGGCCAATAAGGAGGC  
TCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCTGTCCCGCTCGCCCTTCCGGCCAGACCTCTA  
TTTACCAGGGGCGTGCAGCCGCTTGCCAATCAGAGCGCGGCTGAGCGGCCCGCAGCCAACCCCGAGGAGCGG  
CCGGCTGGCGTCCGCGCGCCAGGAGTTGGGGATGTCTCTACAAACCCATCGCCCTGCTCCCAGCAGCACCCCT  
GGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGA  
GCCGCGCTCCTTTCAGACGCTGTTTAAACGACTTTGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCA  
CCCGGCGCCAGGGCTCCAGAGCACCTACACGGACCTGCTGTACATAGAGGAGATGGGCAAGAGATCCGG  
CCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCGCCTGAAGAGAGGTATCATCCATGCCGGGCGCTAGTCAGA  
GAGTGCCCTGGCAGAGACAGAGCGGAACGCCCGCACGTAACAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCC  
GGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTCATCCCGAGTTGCACTAACCATCCTGGGCTTCTGTCTCTGT  
GTCCCTTGGTGGGTCCCTCCAGGAACCAAGGAGTGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCACAAC  
AAGAGTTAGCAGCGAGGTCCCATGAGTCCCACCCATGACCTGCCGACAGTGTGCCACCAGGAACTTTGTGGC  
CCCTACCGCTCAGCCCTTCCAGCACTTCTCCCACTTTGTCCCGAGCCTCTTCTCCCCAGCAGGGGCACAGGC  
CTGGCACCTCCCTGCCCTTGCTGCTGAGCCATAGTGACTCTTTATCTGTGTGCTTTTTGCTAAATATGCCCTTT  
TTATATTAATAAAAGATGATTGGAGTTGTGCTCTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 298**

MSYKPIAPAPSSTPGSSTPGPGTVPVPTGSVSPSPGSGVPGAGAPFRPLFNDFGPPSMGYVQAMKPPGAQGSQSTYT  
DLLSVIEEMGKEIRPTYAGSKSAMERLKRGIHARALVRECLAETERNART



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**FIGURE 300**

MATATPVPPRMGSRAGGPTTPLSPTRL SRLQEKEELRELNDRLAVYIDKVRSL ETENSALQLQVTEREEVVRGREL  
TGLKALYETELADARRALDDTARERAKLQIELGKCKAEHDQLLLNYAKKESDLNGAQIKLREYEAALNSKDAALA  
TALGDKKSLEGDLEDLDKQIAQLEASLAAAKQLADETLLKVDLENRCQSLTEDLEFRKSMYEEEEINETRRKHET  
RLVEVDSGRQIEYKYKLAQALHEMREQHDAQVRLYKEELEQTYHAKLENARLSSEMNTSTVNSAREELMESRMRI  
ESLSSQLSNLQKESRACLERIQELEDLLAKEKDNSRRMLTDKEREMAEIRDQMQQQLNDYEQLLDVKLALDMEIS  
AYRKLEGEERLKLSPSPSSRVTVSRASSRSRVTRTGKRKRVDVEESEASSSVSISHSASATGNVCIIEIDVD  
GKFIRLKN TSEQDQPMGGWEMIRKIGDTSVYKYTSRYVLKAGQTVTIWAANAGVTASPPD LIWKNQNSWGTE  
DVKVILKNSQGEEVAQRSTVFKTTIPEEEEEEEAAGVVVEELFHQQGTPRASNRSCAIM

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FIGURE 301A

ATCAAAATGTGGGGTTTGTACATTCCCGCTGCCGCCGCGGACAGTTCTTAAAGGGCCAGCCGCCGGCTGCCGCCGA  
GACCCAGCTGCGTCTCGCCGCCCTCCCGCTCCCTGAGGGCCTGGGCCGAGAGAGACTGATCGCGCGTGGGCCCTC  
GCGAGGCAGACCCCGTCCGGCGGACACAAAGAGAGAGGCCCCGGGAAGGAGCGCGGCTGCCCCCGGACCCGGGG  
TGGGGAGGGGAGCATTGTTCCCGAGGGCGGAGCTCTTAAAGGATCCAGACAGCACCCCCCGCTCCCGCCG  
CCCCTGCCAGTTTGGCCGTCTAGATCGGGAACAAAGGAGTCAACGTGTGGCCGGCGGCCCAAAGGGTTGTGTAG  
TCCCGGCCAGCCCTCCACCCCTGTCGCCCGCCGATCGGACCATGGGCTCTGGCAGTGACTAGGTGGCCACCTC  
CGCCCCCGTGGGCGAGCGCGATTCTCTGCGGGACCTGGCAGCACCCCGGCCAGCTCTGGGGAAGCCCTGCCG  
TCGAGGGCCCCCTGGCCAGCCCGCTGCCCGGATGAGCGCTTACCTCCAGCAGCCCGCGTCCGACCTCCAC  
ACCTCCCGCTAGAGGAGCGCCAGCCTCGGCTCTGCCGCCGGGAGCCCCGAATGCTGCACCCAGCCACCCAG  
AGAGCCCGTTCATGTTGATCTCCAGCAGCAGGTGCACAGGACCTGTCCTCTGTCTTACACGGTCCACACAG  
TGACGACCCAAAGGCTTCCCTTGCTACAGGCCAGCACATCCTTGCTGCAGTGGCCAGCAGCTCCAGCATGCT  
CCGTGTAGTTTCACTGGGAGCATTACCCCTCTGTGCTCCCGCCCGCTTATCCAGCGGTGCACCTGCAGC  
AGCTGCTGTGCCCTATCAGGCTTACCCCACTCATCTCCAGTGACCACTACATCTGCACCCCCCACCACCGG  
CCCCACCCCGCCAGCCACCCACATGGCGCCCTGGGGCAGTTTGTGCTCTGCAGACCCAGCACCCTCGATGC  
CCCTCCAGCGGCTCGACACAGCCTGGACCTGCTGGGGAGCCAGCCCTCCCTGGGAGCTTACCACTACTCCACT  
CTGCGCTGGCCAGCCCTTTCCCGTGGTGGCTGCACTACTGCCCCAGATCCGCTGCACCCAGGAGCTGT  
CCTTTGTGTGCCATATTCTACATGATGCCAGGAGACTGAGACCCAGAGATACCGCTGCAGCAGCACTGC  
CQCCGCGCGCCACCCACCCACCCACCCCTACTACCCAGCTTCTGCCCCACTTCTCTCGATGCTGCCAA  
TGTCACCAACAGCAATGGGGCCACCATCAGCTGGACCTGGACGTGGATGATGTGGAGATGGAGAATATGAGG  
CCCTCCTGAACCTGGCCGAGCGGCTGGGAGATGCCAAGCCCCGGGTCTCACAAAGCAGACATAGAGCAGCTCC  
CGTCAGCCGCTTTAAACCCGACAGCATCAGTCGGGAGCAGACGCTGTGTGGTCTGCTTCAAGTGACTCGAG  
CGCGGCAGCTGCTCCGAGTCTCCCTGCAACCATGAGTTCACACCAAGTGTGTGACAAGTGGTTGAAGGCCA  
ACCGGACGTGTCCCATCTGCCCGGGCCGACGCTCCGAGGTGCCCAGGAGGCTGAGTCAGGCCACCGCCGCT  
GCCCGGAGAACCTGCTGGAAGCTCTGGAACTTGTGGGTGGGGCCAGGAGGATGGGAGGGAGTGGCCAG  
GCCTGCCCTTCTGCTCTGCTGCAATTCAGAGCTGGTGGCAGGGTCAAGCCAGCAGGAGTCCCTGCAATAAG  
CCCCTGCAATTGGCAAGCTGCAAAAGACTCCCTCCCTAGTCTGCTGCCGCCGCCGCCAGCAGCTGCCTGAG  
TGCTCCTGATCGGGTCTCCCTCTGTGCACCTCAGGTCCCTCCTTTTCTGCTGGCACTGAGTGCAGGGGTCC  
GCTCCCTCAGTGGGGCCGTTGGAGATCCTTGCCCCCAGGATGGGCAGACAGACCACTCTGGGTCAAGAGGT  
TCATGCTCTGAAATGGCTGAGCTGCTGCCAGGTGGCACTGCCAGTGGCTAGACAGCAGGTGTACAGGACCAT  
TCTTGAGCCCCAGGGCTGAATCCCCCTCCTTGACCCGAAACAGTGAACCTCAGGACAGCTGGCTCTGTGTGGCTG  
CTGTGAGGGCTGAGTCTGTTTCCCTAGGGGACCTCATCCAGGAAACAACATTCAGCCCCCAGCTCAGGCTGCA  
GGGCGTCCAGCCTAATCCCGAGTCTGGGGCACAGTATCCTGAGGGGCTTGGGCCATACGGGAGAGGAGGCCCT  
GTGTTCCCGGTGTTGTCCTCCAGGGATGACGCCAGACCCGTGCCAATCTCCTCTCCTCTGTGTTGTTTGA  
TGAACGTGAGGAGCAGCAGTTTTTGTTCATTATTGGCCCAAAATCAGCTGTAGGATTTGGGGATGTGGATATT  
TAAGACAATTTCTTTTCTTTTGGTTTAAATAGGGCCGCTATAGGACCACTGGGACCGAGTGGCCAGGGGGC  
CGAGCAGGTCATGCTGGCCGGCTGCATGCATGCGTGTGCCGGCTGGGCTGGGCGGCCGGCGGTCTGTGGGGCA  
GGGTGGGGGTCTGTGCTCAGCTGATAACTGCCATGTACTGCACAGTCCCTAGAGGCTACCCGAGCCG  
ACGCTTTTTCAGGGCATTCTTCCCTCCAGCCAGGGGCCAACTCCCACTGCCTGGGCGAATCTCCTCCAAGGAAGT  
CCCAGGAGTATGGGACAGGAAGGCTGTGGACCCCATCTCCAGGGGGCTTCCCGCCTGATCCCTGCTCTC  
AAGTTCTGTAGGAGGCCGCTGAGGGCTGGCTGAGCTTCCCACTTCTCCCTGGTCCCAATCTTCTGTGTC  
CTATACCCAGCTGGGTTGCTGCCCTGAACGAATCGGTGTGGGGCCGGCACATCTAGCAGGCAGCCCTGGCG  
CCTGCTGCCTCAGGATGCTCCAACACCTCGTTCTCCTCGCAGTGGCCCTGGCTCCCACTCCCGCCAGCC  
TGCCGTTGGGGCCGTGAGCTGGTCCACCCCATGGAGAACCCAAAGTCTTACTGTATATAACTCCAGTGAGC  
TTTCTATATTTATAGCAGTGTGAAAACCCAGCTGTTTACACAGAACCACCTCTCCAACCCCTCCCTTCCCGA  
CCCAACAAACAGCTTTTCAAACCCCTTACAGTTCTCTGGGGCAGGCGGAAACAGGCTCACAGATTGTGTGTCGGT  
GCAGCAGTGATTTCCAACAGCAGTATTGGGGGGGAAACACAGCATTTAAAAAGATCATCATTAAAAAACAGAT  
TTATACACAATTACTTAGATGTTTGTGATCCGCCACCTTGCTATAGATGCCATGTTACCAATGATTCTCTGT  
GGTGGGGGCTTGCCATTGTTTACTCTCTTATTACCAACTTCTGGCTAGGCATGACAGTGGGCACCTTCCCCCA

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**FIGURE 301B**

GCCCTGGCTGGGCCAGCGCCTGTGTTCTGTGTTAGAAAGGTTTTATATATATATAAAATACATATATATGTAG  
AAATATATGTAATTTGGGGGCCCTGTTCCCTTGACATTTTACAGTTACCTCATTTTCCCATGTATGTATTGA  
GAAAATGCTAATATATAGAGAAAAAATGGTTCTTAAAGCTTAAATGTGTGGTTTTTCCATTCCATGGGATTCA  
CATTGGITTTAGCAITTAACATAACTAGTATGTTGTATTATATATATGTGTATACTGATTGAAATTTTAAACAG  
ATTTGTACTTTTTTAAATGAAAGTIGCTAGTTCGCTTGACCAAGTAGTGCAATCATTATTTTTTTAATATT  
GTTGCTGATTCAGAGGGATATTCACATAAATGTATGATGTATACC

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**FIGURE 302**

MRPWALAVTRWPPSAPVQRRFSAGPGSTPGQLWGSPGLEGLASPPARDERLP SQQPFSRPPHLPVEERRASAP  
AGGSPRMLHPATQQSPFMVDLHEQVHQGPVPLSYTVTTVTQTQGFPLPTGQHIPGCSAQQLPACSVMFSGQHYPLC  
CLPPPLIQA CTMQQLFPVYQAYPHLISSDHYILHPPPPAPPPQFTHMAPLGQFVSLQTQHPRMPLQRLDNDVDLR  
GDQPSLGSFTYSTAPGPALSPSVPLHYLPHDPLHQELSFVGPYSHMMPRRLSTQRYRLQQPLPPPPPPPPPPY  
YPSFLPYFLSMLPMSPTAMGPTISLDLDVDDVEMENYEALLNLAERLGDAPRGLTKADIEQLPSYRFNPD SHQS  
EQTLCVVCFSDFEARQLLRVLPCNHEFHTKCVDKWLKANRTCPICRADASEVPREAE



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FIGURE 303

CGCACCATACCCGCGCGGGCACCTGGGGAGAAATGGATGGAGAAGGGACCTGGCTGGAAGGCTTTGCCCCGCTGC  
TCTGCTCCGCCCATAGAGGAGCCCTGAAATGTCCCGTGCAGTTTGTTCAGTCCCTGTGTGATGAAATGTGCC  
TCTCGCCTTACCCTGTGAGAAATACCTGTGGTGTGGCAGCGAGTATTTTGGTATTTGACCTGTCCAAAGACGACT  
TGATACCTCTATAATGTAAACGAAAGGTCAGAAATATTAAAGCAAGTAGAAGTGTGGAGCATATTAAAGCAAGAT  
GAACATCTCGGGAAGCAGCTGTGGAAGCCCTAACTCTGCAGATACATCTAGTGACTTTAAGGACCTTTGGACAAA  
ACTAAAAGAATGTGATGATAGAGAAGTACAAGGTTTACAAGTAAAAGTAAACAGCTAAAACAGGAACGAATCTT  
AGATGGCAACAAAGCATAGAGAATCTTCCACCAAAATCAACAGCTGGGGAACAGCAGAAAGCTCTCATGAAAC  
CATTAAAGTTTGAAGAATCCGGTTAAGAGCAGGCTTATGTGATCGCTGTGCAGTAACGAAGAACATATGCGGAA  
AAAACAGCAAGAGTTTGAATAATCCCGGCAGCAGAACTCTTAACTTATTACAGAACCTATGAATGAAGGAATAC  
TCTACAGGAAGAAAATAAAAAGCTTTCTGAACAACCTCCAGCAGAAAATTGAGAATGATCAACAGCATCAAGCAGC  
TGAGCTTGAATGTGAGGAAGACGTTATTCAGATTCCCGATAACAGCCTTCTCATTTTCTGGCGTTAACCGGCT  
ACGAAGAAAGGAGAACCCCATGTCCGATACATAGAACAACACATACTAAATTTGGAGCACTCTGTGTGTGCAAA  
TGAAATGAGAAAAGTTTCCAAGTCTTCAACTCATCCACAACATACTTCTAATGAAAAAGAAATCTAGTAGCTGA  
CACTTTGACCAAAAGTCAATCTCCAATGGCCAAAGCAGATGGAAACAGCAGCTATACCCCTGATAAGTCATCTTT  
TAATTTAGCTACAGTGTGTGCTGAACACTTTGGACTTGGTGTTCAGAAGAATCTGAAACTCAAGGTCCCATGAG  
CCCCCTTGGTGATGAGCTCTACCAGTGTCTGGAAGGAAATCACAAGAAACAGCCTTTTGAGGAATCTACAAGAAA  
TACTGAAGATAGTTTAAAGATTTTCAGATCTACTTCAAGAGCTCCTCCTCAAGAAGAATTACCTACTCGAGTGTG  
ATCTCCTGTATTTGGAGCTACCTCTAGTATCAAAAAGTGGTTTAGATTGGAATACAAGTTTGTCGCCCTTCTCTTT  
ACAGCCTGGGAAAAAAAACATCTGAAAACACTCCCTTTTAGCAACACTTGATATCTAGATTGAAAAAACATAG  
ATCAAAATCTGAAGATAGTGCCCTTTTACACATACAGTCTTGGGTCTGAAGTGAACAAGATCATATTCCAGCT  
ATCTAATAAACAGATACCTTATAAATAAAAATATAAGTGAATCCCTAGGTGAACCAATAGGACTGAGTGAAGTAA  
AGATTCTAACACTGATAAACATTTGGAGGCCCTGAAATCATTGGGAGGCCGAACATCCAAAAGGAAGAAAACCTGA  
GGAAGAAGTGAACATGAAGTAAAGTGTCCCCCAAGCTCTTTTGATAAAGAAAATGCTTTCCCTTTTCCAATGGA  
TAATCAGTTTTCCATGAATGGAGACTGTGTGATGGATAAACCTCTGGATCTGTCTGATCAAGTTTCAGCTATTCA  
GCGTCAAGAGAAAAGCCAAAGGAAGTGAGACTTCAAAAACAAATTTAGGCAAGTGACTCTTTATGAGGCTTTGAA  
GACCATTCCAAAGGGCTTTTCTCAAGCCGTAAAGGCTCAGATGGCACTGACGTTGCCCAAAGATTCGCCAGG  
GGAGCCCTGTTACAGGAATGCATCTCTTACGCCCTTGAATAAATGCTCTCCAGACAATAAACCATCATTACA  
AATAAAGAGAGAAAATGCTGTCTTTAAAAATTCCTCTACGTCCACGTAAGTTTGGAGACTGAGAATGTTTGA  
TGACATAAAGAGTGTGGTTCTCATGAGCCAATAAAAAACAAACAGGTCAGCCATGGAGGATGTGAACCTGC  
ATCAGTTCTTCAGTTAAATCCATGTAGAACTGGTAAAAATAAGTCTCTACAAAACAAACCAAGATGTATCTCTTGA  
AAATATCCAGTCGAGTATAGATCCGGGAGCAGACCTTTCTCAGTATAAAATGGATGTACTGTATGATAGATACAAA  
GGATGGCAGTCAGTCAAAATTAGGAGAGAGACAGTGGACATGGACTGTACATTTGGTTAGTGAAACCGCTTCTCT  
AAAAATGAAGAAGCAAGAGCAGAAGGGAGAAAAAAGTTCAAATGAAGAAGAAAAATGAATGATAGCTTGAAGA  
TATGTTTATCGGCACACACATGAAGAGTATGAATCCTGTTTGGCAGACAGTTTCTCCCAAGCAGCAGATGAAGA  
GGAGGAATGTGCTACTGCGCAAGAAACTACACACTCATGGTGATAAACACAGCAAAAGTCAAGCAGAAAGCGTT  
TGTGGAGCGTATTTTAAAGTGATGAAAGAGAGACTAGCTTGCAAAATTTTCTCATATTGAGGTGGTTGCGAA  
AAAAGAGGAGAGAAGAAAATGCTTGGGCACACGCTGAAGGAATGGAATTTATTATGCAGATATGCCAGCAGA  
AGAAAGAGAAAAAGAAATTTGGCTTCTGCTCAAGACACCGATTCCGCTACATTTCCACCCAACACACAGAGAAATTT  
TTGGGAAGTTGGTTTTCTCTCCACTCAGACTTGTATGAAAGAGGTTATATTAAAGGAAGCTTGTATCCTTGTC  
TCGTCCAAAAGACGTACAGCTTACAACGCAATATTTTCCAAAAGGCAAGGACAGAGACA**TAG**ACGTTGAA  
ACAGAAACAGAAAGGATGAAGGACAGTTTTTCTCTCTAGTTATTTATAGTTAAAGTTGGTACTAAACATTGATT  
TTTTTGATCTCTGTAATGATTATATAAATCAGTTTTCTATTGAAAATGTTTGTGATATTTTGCTTTTGACCT  
TAAAACATAAGGCGCTTTTCAAGTTTCTTGGCACTTAACTTAAGAGTTTTTACTTTATGTAGTGATGATCAATAACAAT  
TTTGAAAATACAAAAA

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**FIGURE 304**

MNISGSSCGSPNSADTSSDFKDLWTKLKECHDREVQGLQVKVTKLKQERILDAQRLSEFFTKNQQLREQQKVLHE  
TIKVLEDRLRAGLCDRCVATEEHMRKKQQEFENIRQQNLKLITELMNERNTLQENKKLSEQLQOKIENDOQHQA  
AELECEEDVIPDSPITAFSFGVNRRLRRKENPHVRYIEQHTHTKLEHSVCANEMRKVSKSSTHPQHNPNEILVA  
DTYDQSQSPMAKAHGTSSYTPDKSSFNLATVVAETLGLGVQEESETQGPMSPLGDELYHCLGNHKKQPFEESTR  
NTEDSLRFSDDSTSKTPQEELPTRVSSPVFGATSSIKSGLDLNTISLSPSLLQPGKKKKHLKTLPPSNTCISRLEKT  
RSKSEDSALFTHHSLGSEVNKIIIQSSNKQILINKNISESLGEQNRTEYKGKDSNTDKHLEPLKSLGGRTSKRKKKT  
EEESEHEVSCPQASFDKENAFPPMDNQFSMNGDCVMDKPLDLSDRFSAIQRQEKSSQGETSKNKFQVTLTYEAL  
KTIPIKGFSSSRKASDGNCTLPKDSPEGPCSQECIILQPLNKCSPDNKPSLQIKEENAVFKIPLRPRESLETENVL  
DDIKSAGSHEPIKIQTRSDHGGCELASVLQLNPCRITGKIKSLQNNQDVSFENIQWSIDPGADLSQYKMDVTVIDT  
KDGQSQKLGGETVDMDCITLVSETVLLKMKKQEQKGEKSNEERKMNDLSLEDMFDRTTHEYESCLADSFSAQADE  
EEELSTATKKLHTHGDKQDKVKQKAFVEPYFKGDERETSLQNFPHIEVVRKKEERRKLLGHTCKECEIYYADMPA  
EEREKKLASCSRHRFRYIPNTPENFWEVGFPSQTQCMERGIKEDLDCPRPKRRQPYNAIFSPKGKEQKT

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**FIGURE 305**

GGGAAGTGTCTGTTGGAGCCGCTGTGGTTGCTGTCCGCGGAGTGGAAAGCGCGTGCCTTTTGTTTGTGTCCCTGGCCA  
TGGCGCTGCAGCTCTCCCGGAGCAGGGAATCACCTGCGCGGAGCGCGGAAATCGTGGCCGAGTTCCTCTCAT  
TCGGCATCAACAGCATTTTATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGAC  
TCACCTTGCTTGTAACCTACTGATCTTGAGCTCATAAAATACCTAAATAATGTGGTGGAAACAACGAAAGATTGGT  
TATACAAGTGTTCAAGTTCAGAACTGGTTGTAGTTATCTCAAATATTGAAAGTGGTGAGGTCTCGGAAAGATGGC  
AGTTTGATATTGAGTGTGACAAGACTGCAAAAGATGACAGTGCACCCAGAGAAAAAGTCTCAGAAAGCTATCCAGG  
ATGAAATCCGTTTCAGTGATCAGACAGATCACAGCTACGGTGACATTTCTGCCACTGTTGGAAGTTTCTTGTTTAT  
TTGATCTGCTGATTTATACAGACAAAGATTGGTTGTACCTGAAAAATGGGAAGAGTCGGGACCACAGTTTATTA  
CCAATTCTGAGGAAGTCGCGCTTCGTTTACTTACTACAAATCCACAAAGTAAATAGCATGGTGGCCTACAAAA  
TTCTGTCAATGACTCGAGGATGACATGAGGAAAAATAATGTAATTGTAATTTTGAAATGTGGTTTCTCGAAATCA  
GGTCATCTATAGTTGATATGTTTTATTTCATTGGTTAATTTTACATGGAGAAAAACCAAAATGATACTTACTGAA  
CTGTGTGAATTGTTCCTTTATTTTTTTGGTACCTATTTGACTTACCATGGAGTTAACATCATGAATTTATGCA  
CATTGTTCAAAAGGAACCGAGGTTTTTTTTGTCAACATTGTGATGTATATTCCTTTGAAGATAGTAAGTGTAGA  
TGGAAAAACCTGTGCTATAAAGCTAGATGCTTTCTCTAAATCAGATGTTTTGGTCAAGTAGTTTGACTCAGTATAG  
GTAGGGAGATATTTAAGTATAAAATACAAAGGAAGTCTAAATATTGAGAACTCTTTGTTAAGGTCTGAAAGT  
AACTCATAATCTATAAACAATGAAATATTGCTGTATAGTCCCTTTGACCTTCATTTTCATGTATAGTTTCCCTA  
TTGAATCAGTTTCCAATTATTGACTTTAATTTATGTAACCTGAACCTATGAAGCAATGGATATTTGTACTGTTT  
AATGTCTGTGATACAGAAGCTCTTAAAAATGTTTTTTCATGTGTTTTATAAAATCAAGTTTAAAGTGAAAGTGAG  
GAAATAAAGTTAAGTTTGTTTTAAAAAAAAAAAAAAAAA

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**FIGURE 306**

MALQLSREQGITLRGSAEIVAEFFSFGINSILYQGIYPSETFTRVQKYGLTLLVTTDLELIKYLNNVVEQLKDW  
LYKCSVQKLVVISNIESGEVLERWQFDIECDKTAKDDSAPREKSQKAIQDEIRSVIRQITATVTFPLLEVSCS  
FDLLIYTDKDLVPEKWEESGPQFITNSEEVRLRSFTTTIHKVNSMVAYKIPVND

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**FIGURE 307**

AGCGCGCGCCTCAACTAAAGTGGCCATTGACCTTTCAAGCTTTGAGCAGTGATGCAATAGAATAGTATTTCAA  
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTACAA  
TTTCAAGTAGGTCATATTTCCGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA  
ACGGGGTTGGAGGTGAGAATCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCAGCCCTGGGGCGTCAG  
CCCTGCGAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCTTCCGGGCGCGC  
AGGCGATCAGTGGGTGACCCGGCTGCGAGGACTTTGTATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA  
TCCCTTCTCTCTGCCACCATTTCCGGACACCCCGCAGGGACTCGTTTTGGGATTCCGACTGACTTCAAGGAAGG  
ACGCGAACCCCTTCTGACCCAGCTCGGGCGGCCACCTGTCTTTGCCGGGTGACCCCTTCTCT**CATG**ACCCCTGC  
GGTGCTTGAGCCCTCCGGGAATGGCGGGGAAGGACGCGGAGCCAGTGGGGGACCGCGGGGTCCGGCGGAGGAC  
CATCCCCCGAGGCGCGCTGCGGAAGGCCCTGCGGGAGCTCGGTACAGCAGGATGGTACTGGGGAAAGTATGA  
CTGTTAATGAAGCCAAAGAGAAATTAAGAGGCCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCAATTCAG  
ACTACCTACTAACAAATATCTGTTAAAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAT  
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTTATCTGATCGACTACT  
ATGTTCAAGATGTGAAGGATAAGCGGACAGGTCCAGAAGCCCCCGGAACGGCACTGTTACCTTTATCTGACCA  
AACCGCTCTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCAATTAACAAATGTACCGGTGCCATCT  
GGGGACTGCCCTTACCAACAAGACTAAAAGATTACTTGGGAAGATATAAATTCAGGTAT**TAAAT**GTGTTTCTCTTTT  
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA  
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT  
GTTTAAAGTCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT  
TTAGATTAATAAAATAAATGTGCGATGTAAAGGCTGAAGTCGCGTTTATCAGAATGCCTTGCTTCTTAGGTTCT  
TTTCCATTATGTCAAAGGTCAGGCTCCAGTAGGAGAGAGAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG  
GAACCAAGCTGACACAGGCCCTCACTGCAATTTGATATGCTGCTGATCAGAGTCTCTTGGGCAATTTATATTTTG  
CATTCTGATGTACTAGGAGTTTGTGTAACAGATGATGTATGTGAGTATTTATCCCATTTTATGCAATTAACCA  
AATCAACCAAAAAAGTGACCATGAAGTCCTGTATTGTCTTTTACTACATGTAGGAACCTCATGTGAATGAG  
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTCAGAAATATTTCAAACCTGGTGCAATGGAAAGACTTTTCTC  
TTTTCTTTAAAGCTAAAGACAAGAATATCATGTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT  
AGGTATAGGCATTTACCCCTTTGAAATAGCTGTGTCCCAACCTGTGCCATTGATTTTTTGGAAATGGCTTTAGA  
AATATCCAAGTTGTCTTGAATTGTCTAACCATGACACATAACACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT  
GACTTAATTTTCTCCAGATACAGGGGATACCTGCTGTTTTTCAAAGTGTTTATTACTGCTGTTACTATTG  
ATTAGAATGTATTAATAAAAAAACCTGATTCT

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**FIGURE 308**

MTLRCLEPSGNGGEGTRSQWGTAGSAEESPQAARLAKALRELGQTGWYWGSMIVNEAKEKLKEAPEGTFILIRDS  
SHSDYLLTISVKTSAGPTNLRIEYQDGKFRLDSIICVKSKLKQFDSVVHLIDYVQMCKDKRTGPEAPRNGTVHL  
YLTkPLYTSAPSLQHLCLRTINKCTGAIWGLPLPTRLKDYLEEYKFQV

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**FIGURE 309**

AGCGCGCGCCTCAACTAAAGTGGCCATTGACCTTTCAAGCTTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA  
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTACAA  
TTTCAAGTAGGTCATATTTCCGGGGCGGGTGCAGACAAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCTCCA  
ACGGGGTTGGAGGTGAGAATCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG  
CCCTGCGAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCTTCCGGGCGCGC  
AGGCGATCAGTGGGTGACCGGGCTCGGAGGGACTTTGTCTCCGTCCTCAGGATCTGGGGAGAAAGAGCCCCA  
TCCCTTCTCTCTCGCCACCATTTCCGACACCCCGCAGGGACTCGTTTTGGGATTGCGACTGACTTCAAGGAAGG  
ACGCGAACCCTTCTCTGACCCAGCTCGGGCGGGCACTGTCTTTGCGCGGGTGACCCCTTCTCTC**ATG**ACCCCTGC  
GGTGCTTTGAGCCCTCCGGGAATGGCGGGGAAGGACGCGGAGCCAGTGGGGGACCGGGGGTCTGGCGGAGGAGC  
CATCCCCGAGCGGGCGCTGTGGCAAGGCCCTGCGGGAGCTCGGTGACAGAGGATGGTACTGGGGAAGTATGA  
CTGTTAATGAAGCCAAAGAGAAATTAAGAGGCCACCGAAGGAACCTTCTTGATTAGAGATAGCTCGCAATTCAG  
ACTACCTACTAACAAATATCTGTTAAAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAT  
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAAATTTGACAGTGTGGTTCATCTGATCGACTACT  
ATGTTTCAGATGTGCAAGGATAAGCGGACAGGTCAGGAAGCCCCCGGAACGGCACTGTTACCTTTATCTGACCA  
AACCCTCTACAGCTCAGCACCATCTCTGCAGCATCTGTAGGCTCACCATTAAACAAATGTACCGGTGCCATCT  
GGGGACTGCCCTTACCAACAAGACTAAAAGATTACTTGAAGAATATAAATTCAGGTAT**TAA**ATGTTTCTCTTTT  
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA  
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAACTAATTAAATTTAACAGCTTGAAGAGGTAGCTAGGT  
GTTTAAAGTTCCCTCCAGATACTTTTACCTGAGTGTGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT  
TTAGATTAAAAATAAAATGTCGCATGTAAAGGCTGAAGTCGCGTTTATCAGAATGCCTTGCCCTTCTTAGGTTCT  
TTTCCATTATGTCAAAGGTCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG  
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTTATATTTTG  
CATTCTGATGTACTAGGAGTTTTGTTAAACAGATGATGTATGTGAGTATTTATCCCATTTTATGCAATTAACCA  
AATCAACCAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTACTACATGAGGAACCTCATGTGAATGAG  
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTCAAGAAATATTTCAAACCTGGTGCAATGGAAAAAGACTTTCTC  
TTTTCTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT  
AGGTATAGGCATTCTACCTTTGAAATAGCTGTGTCCCAACCTGTGCCATTGATTTTTTGGAAATGGCTTTAGA  
AATAATCAAGTTGTCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT  
GACTTAATTTTCTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTACTGCTGTTACTATTG  
ATTAGATGTATTAAATAAAAAAACCTGATTTC

**FIGURE 310**

MTLRCLPSGNGEGTRSQWGTAGSAEESPQAARLAKALRELGQTGWYWGSM TVNEAKEKLKEAPEGTFLIRDS  
SHSDYLLTISVKTSAGPTNLRIEYQDGKFRLDSIICVKSKLKQFDSVVHLIDY YVQMCKDKRTGPEAPRNGTVHL  
YLTkPLYTSAPSLQHLCLRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV



**FIGURE 311**

GGGTGAGCAAAGGGGCGGGTCCCTGGCTGCTGTGGCCTCCCTGACCCCTCCCCCGCTGCTGGGGTCTCGGC  
CAAGCCCCCTTCTCACTGGACTGAGACATGAGGCTGAGCTGGTTCCGGGTCTGACAGTACTGTCCATCTGCCTG  
AGCGCCGTGGCCACGGCCACGGGGCCGAGGGCAAAGGAAGCTGCAGATCGGGGTCAAGAAGCGGGTGGACCAC  
TGTCCTCATCAATCGCGCAAAGGGGATGTCCTGCACATGCACTACACGGGGAAGCTGGAAGATGGGACAGAGTTT  
GACAGCAGCCTGCCCCAGAACCGCCCTTTGTCTTCTCCCTTGGCACAGGCCAGGTATCAAGGGCTGGGACCAG  
GGGCTGCTGGGGATGTGTGAGGGGGAAGGCGCAAGCTGGTGATCCCATCCAGCTAGGGTATGGAGAGCGGGGA  
GCTCCCCAAAGATTCCAGGCGGTGCAACCTGGTGTTTCAGGTGGAGCTGCTCAAAATAGAGCGACGAAGTGTG  
CTGTAAACAGACTGGGGAGGGGCAGGGGGAGAGGCCCCATCAGGGACCAGACTGTTCCAAAAAACAACAAAA  
ACAAAAACAACAAAAAACACTTAAAGCCCAAGGAGTAAGCCTGTGTGTTTGTGGGCCCTGAGAGACTCAGAG  
ACCTCAGCTCCAGCATACCCACCACCTTCTCCTTTCC

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**FIGURE 312**

MRLSWFRVLTVLSICLSAVATATGAEGKRKLQIGVKRVDHCPKSRKGDVLHMHYTGKLEDGTEFDSSLPQNOF  
FVFSLGTGQVIKGWDQGLLGMCEGEKRKLVIPSELGYGERGAPPKIPGGATLVFEVELLKIERRTEL

## FIGURE 313

ACTCAGTGTTCGCGGGAGCCGCACCTACACAGCCAACCCAGATCCCGAGGTCGGACAGCGCCCGGCCAGATCC  
CCAGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCCGACTCCGACTCCGAGCAGTCTCTGTCTTCGACC  
CGAGCCCCGCGCCCTTTCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCCTGCGGGCCATGGAGACCCCGTCC  
CAGCGGCGCGCCACCCGACAGCGGGGCGCAGGGCCAGCTCCACTCCGCTGTGCGCCACCCGCATACCCGGCTGCAG  
GAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGCGGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGGAG  
AACGCAAGGCTGCGCCTTCGCATACCCAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCC  
TACGAGGCCGAGCTCGGGATGCCCGCAAGACCCCTGACTCAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAG  
CTGAGCAAGTGCCTGAGGAGTTTAAAGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCT  
CAGGCTCGCTGAAGGACCTGGAGGCTCTGCTGAACCTCCAAGGAGGCCGACTGAGCACTGCTCTCAGTGAGAAG  
CGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAG  
AAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACCTGGAC  
TTCAGAAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC  
AATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACCTGCGGGCCAGCATGAGGACCAAG  
GTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG  
AACAGCAACCTGGTGGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCCCAG  
CTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGAGGAGACTCACTGGCCCCGTGAG  
CGGGACACCAAGCCGGCGGTGCTGGCGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGCAG  
CTGGACGAGTACCAGGAGCTTCGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCCTACCGCAAGCTCTTG  
GAGGGCGAGGAGGAGAGGCTACGCCCTGTCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCTCTCAC  
TCATCCAGACACAGGTTGGGGGCGAGCTCACCAGAAAGCGCAAACTGGAGTCCACTGAGAGCCGAGCAGCTTC  
TCACAGCACGCACGCACTAGCGGGCGCTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGC  
AACAAAGTCCAATGAGGACCATCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGTGACT  
TACCGGTTCCCAACCAAGTTACCCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTCGAGGAGCTGGGGCCACC  
CACAGCCCCCTACCGACCTGGTGTGGAAGGCACAGAACCCTGGGGCTCGGGGAACAGCCTGCGTACGGCTCTC  
ATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGAT  
GAGGATGGAGATGACCTGCTCCATCACCACCATGTGAGTGGTAGCCGCCGCTGAGAGCCGAGCCTGCACTGGGGCC  
ACCGAGCCAGGCTGGGGGCGAGCTCTCCGCCAGCCTCGCCGTGCCAAAATCTTTTCATTAAAGAAATGTTTGGAA  
CTTT

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**FIGURE 314**

METPSQRRATRSQAQASSTPLSPTRITRLQEKEDLQELNDR LAVYIDRVRSLETENAGLRLRITESEEVVSREVS  
GIKAA YEAE LGDARKTLD SVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALST  
ALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIIYSEELRETKRRHETR  
LVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNNSNLVGAAHEELQQSRIRID  
SLSAQLSQLQKQLAAKEAKLRDLED SLARERDTSRRLLAEKEREMAEMRRMQQLDEYQELLDIKKLALDMEIHA  
YRKLLGEGERLRLSPSPTSQRSRGRASSHSSQTQGGG SVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGK  
FVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNS  
LRTALINSTGEEVAMRKLVR SVTVVEDEDEDEGDDLLHHHHVSGSRR

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FIGURE 315

CCAAGCCCATGAGGGCCGCGCCGCCCGCGCGGTGCTGACGAGACGGAGCTCCTGGCCCCGAGGAGGAGCAGA  
GGATCAATGCGGTTCAAGAAATCGATTCCAGCGGTTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA  
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCAATTCCTCATTTGTTCCGGCCATCGTGGGCAGTGGCCCTC  
CTCCATCGCGCTGTGTGATGACTGCTGGGAAAAGATAACAGCATGGATTATGGAATGGGACTCTGTGCCCTCTTC  
ATCGCTTCTACAGTATTTTCACATTGTATCATGGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTCACATG  
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTATGCTCCATGGTTAAATCTTCGTGAACCTGGACCC  
CTGGCATCTCATATGCGTTGGTTTTATCTGGCTCATGGCAGCTGGAGGAACCATTTATGTATTTCTCTACCATGAA  
AAATATAAGGTGGTTGAACCTTTTTCTATCTCAAAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC  
AACCCGATGGACTTCAGGAACCTTGCCCTGTGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT  
GGCATCATTTCCATTTGGCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTCGAGTGCATTACTACGCCATT  
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTTATGCAATCTGTACTAATTTCTCCAAACCG  
TATTTATTTCAATTATGGCACTTGGGAGTGGGGTGAGAGCTAAACATTGCACAGGGCAAGAAAAAAATAACTGC  
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAGTATAAAGGCTGTGTTCTGGAATTTTCTGCCTCACAG  
AAATAAATAAGGTAGTGAATTAATTTATTCATCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAACT  
GATGTTTACAACCCAGACTTTTATATTTTAAATTTTACAGATTTTACTACATGATTTTCTAAATTTACTATGTCAG  
GTTGTAAAGTCAGTGCAATAACAAACCTTCCTTTTTAAAGAAAATTTGTTTCTATTACTTTCCCATCTACAGT  
GTAAGAATCATGGACAGAACTTACACTACTTTTTACCATGTTTTCATCTTGGCATAACATGGTCTTTTTTAAAT  
AGAAACTTTAGTTTTTTGTAATTTTTTAAAAAAATATTTTCATTGATATGCATCTCTGCAGGTCTCTATTATGTT  
GTAAATTTTGGAGCAAGCAGTCAACATTTCCACAAACGAACAAACATTATACCTCTCTGATAGTTTTTAAAGC  
ATGGAGAAATGGCAATTTTAAAAACTGCAGTTTCCAACTTTTCTGCCAACCTCTTACTCTGAATTCAGTGC  
TGCTTTGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAAGTATTTTGATATCATTAACCTTTTCA  
AAAGATCCAACCTTTTCTCTATGCTTTGCCACATTTCTCTTCAGGGTCTCTTTCCACAGCGGATAAATGTTTTT  
CTGATATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG  
TTGTATTGCGCTGTTTGGTGCCCAATGGTTAAGTCATTGTCACTTAGCTTTATATTGTGAGTTGATATTTATTTT  
AAATTGTGGAACTAGATGCATAAATTCACATTTCTGCCCTTTCCTTTGTCATCTCTCATATATTGTGTTTTTTTT  
TTTTTCTAGAAAAAATATTTAAAGCATTTGTTGACAGGTAGAACTCATGTATCTGTAGTCCATGAGTTATATC  
CTGGCTCAGTGGAGTGATATTATGTATATTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAAACATGTTGT  
TAATAGTTGCTTTTGTGATTAATCTCTTGTGTGGTGTTTTAAATAAATGAAATAGGCTTGGCTTTAGATCGGGTG  
CTGATATTGCCCTGTTTCCCTAGTAATGGGCTGATCAATGATCAGTGGAAATCTTGGTTTGATGATAACCTTATTA  
ATTGAAATTTTTCATGATGTGGCTTTAAAGAGGTTTATTTGTATATGTTTGAACCTCTGATTTTGTATGAA  
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC  
AACCAACCACTCCTATCTGATGATTCTGAACTCTGATGCTGTTTGTGTTTACTGTGTATATTTATTTTAA  
TATATTAACTTTGTGGATTATTTAAGGCTACTCAAAGTAACACTGTCCAAACCACTAATATGTATGTAAAAA  
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTGTTTCCAAAAA

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**FIGURE 316**

MRFKNRFQRFMNHRA PANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA  
STVFHIVSWKKSHLRTAEHCFHMC DRMVIYFFIAASYAPWLNLR ELGPLASHMRWF IWLMAAGGTIYVFLYHEKY  
KVVELFFYLTMGFSPALVVTSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLFVATAAAVHYIAWK  
YLYRSPTDFMRHL

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FIGURE 317A

GGGGGAGGGAACCGAGCAGTAACAAGTATCCAGAGGGTGCTGCTGAGGCGACGATGCGCCGAGGGGCCCCGAGGA  
AGCCCCAGGCCACCTCCCGGGCAGGACGATGGCGGGGGGAGCCAGAGCCCGTCCCTTCCCTGAGAGGCCCTCC  
TACCACGCCGCTCCATCGCCCGCGCAGCAGCCCCAGGCCGAACCCAGGCCCGGGCGGGCCACAGCCCGGGG  
CTCCGGGCTGCCCGCCGACAAATTGAGCGCCGCCGCGAGCTCAGGAAGCGCGGGAGGCGGCGCTCCGG  
CTCCGGTGACAGCTGCAAGGAGCAGGCGGGCTGCGAGGCGCCCCGAAGCGCGGCCACGAGAGAGACCAGCTCG  
GCTGAGCCGCCGCGAGTACTCCCGGCAAGTGACAGAGTGGCTGTGGCAGTCTACTGCGGCTACCTCAGCTGGCA  
CAGCGGCTGGCCGCTTCCGAGCTACTGACGCCCCAGCCCTCCCCGAAGGCTTCCCTTCGGGCGGCGCTGCG  
AGTCCCCAGGCCGCGCGCGCCGCCCGCCCGCAGCTGGGCTATTACAACCCCTTCTACTTCTGAGCCCCGGGGC  
CGCGGGGCTGACCCCGCGGACAGCTGCCGGCATCAGCACCCCTGCTCCAGTCGCGGGGCTTGGGACCCCGGGCTCC  
TCAGTGCAGGGCGTGCTGGTCCGCGCTCCAGCTCCAGTGACGAGGGTAGGATCCGAGCCCTTCGCGAAGCCCGAGCGA  
GACCGGGCAGACGGCAGGCAGAGAATATGTTATTCATCCTTGGCCACAGATTTATGGCAGAGATGGTGGATTT  
CTTTATTCTCTCTTTATAAAGCAACCAATTGTCTTAAGCATTATGCACCTCAGTGGGATAAAGGATATCTCTAA  
GTTTGCTATGCATTATATAAAGAGAAATAGATGAAGACACATCAATTGGAAGACTTGCAGAAAATGATGGTTGT  
GGCACTTATATACAGATTATTAGTTTGTCTTATGAGATAATTTGCATTGGGGAGCAGGTGGAGCTACCCCGAG  
GAAGTTCTCTGCTGGGGCTTCGAGTTTGACATGTGATACATCAGTGCTTATTGCAACCAAGTGGGTTTATTAGTAT  
TCCTTCTCAATGTTTACGATTACAAGCTCCCATCTCCGAGCTTTGATCAAGAAATTTTCAATTGCTCTTTTT  
CCCTGCTTTCATCACACTGCTGTTTTTTCAGCATAAATCGAACAGCTTATGACATTGTAGCAGGAACCAATTGTGGT  
AAAAAGAAATGGGGTCAGATGAGTGGCCCCCAAAACCCCTGATTTCCACACACTAAGACTAAATATGTATCAAGGC  
CATCAGTATCCCTGGGTACACTAATTGATGATTTAGAAATTAAGCAGTCACTCCAGTGTGATGCAGGTGACTA  
CTCTGAAAGTATTGATTATCTGAAATGCCAAGAACTTGCAGAAGAAAAACCTGTTAAATTCAGTATTA  
ATTTTATGATCAAAAGGCAAAATGATTTATAAACAATGGACAATATATACTTCTTAAGATCTAAGGTACTTTC  
TTAAGATCTAAGAATTTGCTGAAAGCAATTTTCAGCTTTGAAATCTCCAATGAAACTTTAAATTTATTTTGGTT  
TATCCCAAAATATGGAAATGTCGAGTTGTGTTTTGTAACACCTATGTAACTCATCTTTTATTGTTACACTTCC  
TGGGAAATTTGCTTTTGGTGTTTAGAGGAGGGAATGAGAACACAATTTGGATATCCCACTGTCCTCCATCCGAG  
AGGTGGTGAGTTGGCTACAAGAGAAAGGACAAAGTGAGGCAGGCCTAGCAGTTCCCTTACCTGAAAGTTTCAAAAT  
CCATACGCAAGTTCCCTCTCGTAAATGATGTAACCTTACAACATATCTTAATGCTTGAACATGATTTAGGGGCAA  
GTTTCTCATGATGATGAAAAAGTATCAAGTCATATTGCTATGTTAATTGGTTTTTTTTTTTAAAGGTAAGTTAG  
TGATTACTGTTAATGGTGGGGAGTAAGTTTTCAGTGTAAATGAACTTATAAATTTATGTGCAAGTGTTTCAGT  
GCCCTGAATCAAACTATAAATGTGGGGAGAAATCACCTCCATCAACAGTTGCATATTTACTGTGAAAGATTTCC  
CAGTATGTGTGACGATGAAGGAAAGTATTAGTGCTTCTCAGTGTTCTCAGTGAAATTTCTATTATATACAGCAT  
ATTCACATACACTCTTCCCTATATTTATATAGTTCTATGACTGTTGAACATCAAGGATTTAAAAAATCTTTAA  
TATTTCAATGATTAACCTCTAAGTACTATTTAATAGCTTGCAGAAATATTAGCAATTTCCCATATGGACTATCTCTC  
TAAAGCAAGAGAGACTAGCATTCCAGACATCATTTAGGGTCTTTAAGCTCATTTTGGGCTGCTGCTAAAGTTGG  
GGGGAATGTTACGCAAGGTGATCTGTGATGTTGCCATTTTGTCTTATCTCTGTTGAAGCAAAATTTGGGG  
GTTTTATTATGTGTGTGCTTTTCCGTAGATGTCGAGTTAGCTGTGCTGAGATATACCTGTATATTTATGGTT  
TAAGTTTGATTCTTAGGTATTTTCTCCAGCTCTGACATGTTTTCCAAAGACACACTAACTGCATTGCACAGT  
TCAAAATTTGATTACTTAAGGGATCAATCTAGTGGTGTCTTGGTCTTAAATTTAAACAGCAACACAGCACATA  
TCTATTATCAGTATTTAAATTTCAAGAGTTTTCTGTGACGTTTAAACGTGACACAGATTTACCATTTGA  
TTATAGAACTTAATGTCTATTAAATATTTAGTACAAATTTTCAATAAACCGTGTTTTTCAAAATTAAGTTATGT  
CAAAATCCAGCTTCCCGAAGAACATAATAATTAGTACATCAATGTACTAAATAAATCATTTCAGTTGCACCATGG  
GGAAGATTGTGTTACTGCCCTTCAGCTGAAAGGAAAAAATCTTTTCAATTTTAAATTTAGGAGATGTTACGTA  
ACTTGGCACTTTAGTAGGTATACACATAGCATTAGTTTATACACCACTTTTGGCGCTGGGGATTCAGTTGAAAT  
GTCCCTCAATCATATAGTCTGGAATACATCTTTCATTATAAATTTCTGCTCAGATAATGTAATAGTTTGGCAATC  
GAGATTTATTTTCAATTTATACATAAAGCAAACTAGTCCAGTTTAAATTTTTTGTACTTAGAATATTGCAC  
ATTTTCTATATATGAGTTATTAGATTAGTATCTATGTAGGTTTCAGTCAGATCCAACCATGGATTCGAGGTATTA  
TACTGTATAAACCTCAAAATCAGATAGAAGTATTTTGGCTTCAATAATAGAACCCAAAGAGCTGTTTTCATTTA  
TGAATTCAGTATTTGCACCGAGATTTTGATTCCCAAAGTTTGGAAAAAATGACAAAAACAGGGAAGAAGGA  
ACCAGACCTTAGTGCCACATATTTTCTCTGGGGTGTGAAGGTAGTCTCTGCTTTCAGAACACTTTATTATA

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**FIGURE 317B**

TTTCACTTATAGACCTGATTTTCTGTGTCAAAGTATAATTCTCATGCTGAAGCTGTAGCCTAAAAAGCCAAAAGA  
AAGTTGTCTTCATTGTACAAACATATTCATCACTTTAACAATAAGGGAACAAAATTTAGTATTCAAGCTGAGTGA  
GAATACCTGGTTCATGGACATGTCCCTAAGATAAACCCAGAATTGGCAGTTAATTTAGGCGTCTAGAAAAATCTCAG  
TTCCCAACAGTAAAAATTATCCTGAGTAGCTAATGCACTTGAGAAAAATCTGGCATACTGAATAAGTAACATTAA  
CTTGGGAGCCAAGAGCTGGGTAAAGCCTTACCTTTAGACTACTCTGTGACTACAGAAATAAAGCCAGCACTTTTGG  
AACTAATAAGCCTTCACTTGTGAGTATCATAAAGAGTATTGCCCAACTGAACCTTTGCTCCCACTGGTTTAATAGT  
TACTTATTTCTGCTTAAGCACTCACCTTCCGATTTTACCCAAGTATATATATAGGATAGAAAAAATGCATTATA  
TTTGAGAGCTCACTTCGCCCCGAATTACAAAATGAGTGTTTTTAGATTCAAGTGACGGTAAAGGATTGTTCCTT  
TCAGTGACTTGAGTGTTTTAGTTATGCATAAGTATTTCTAGCAAAGGAAGGGTAGAAAGGAATTGAAAAATTAATT  
TACACTAGTTGCTACTTGGGAATAAAGGGCTTTTTGAGGGGGGTATGGATATTAAATGTTTTCGTTATATACTTA  
TCCCTATTAACACAGCGAGTTGTTTCTTTGAATATGCCTAAATAACAGTATTCTTAAATCTGACAGACAAGTAA  
CATGTCAATTACTTGATATTCCTTGTCTCCAGTACCACAGGCCACTCTTGACATCCCATGTTTGCTGGATAAAG  
TTCCTCATTTCAAACAGTATACATACTTCTTTGCAGTTTATTAGTAAGGCTTAACCTGTAAACAGTATCTGAT  
GGCCACCTATAAATAAAATTGAGATTCTATTTTAAATAATTTGTATGCCACCAATTTGTATTATTTGTCTCAA  
TAAATACTTAGTCATCGATGCAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 318**

MAEGFEEARGHPGQDDGGGDHEPVPSLRGPPTTAVPCPRDDPQAEQAPGRPTAPGLAAAAAADKLEPPRELRK  
RGEAASGSGAELQEQAGCEAPEAAAPRERPARLSAREYSRQVHEWLWQSYCGYLTWHSGLAAFPAYCSPQSPQS  
FPSGGAAPVQAAAPPPQLGYYNPFYFLSPGAAGPDPRTAAGISTPAPVAGLGPRAPHVQASVRATPVTRVGSAA  
PSRSPSETGRQAGREYVIPSLAHRFMAEMVDFFILFFIKATIVLSIMHLSGIKDISKFAMHYIIIEIDEDTSMED  
LQKMMVVALIYRLLVCFYEIICINGAGGATPGKFLGLRVVTCDSVLIAPSRVLVIPSSNVSIITTSTIRALIKN  
FSIASFFPAFITLLFFQHNRTAYDIVAGTIVVKNRNV

## FIGURE 319A

GGTAATGCTTAAACTTCCTGCTCTTTTGGCTCTACAGGAAAGAAGAAAGAACACAAGAAAGTGAAGTCCACTAG  
GGATATTGTTCCCTTTTCTGAACTTGGAACTACTCCCTCTGGTGGTGGATTTTTCAGGGTATTCTTTTCTCTGA  
AATCTCACCCGCTCCTCTTTTGGCCAGTACCGAACTACAGGCAGCTAAGAAAGTACATACTCTAAGGGAGACCT  
ACCTAGGGAGCCTCTTGTTGGCCAAACTTGCCTGGCAGGGGACAGTTGCTGAGAGTTAGCCTTTGAAAGGAATTT  
GTTTATTTCATGCAAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTCTTCTCGTCATCTTCTCAGCCTGAACACAG  
TGCAACTGTGGTCTCTACTGCAGCTCTCTCTTCTACTGATTAAAGAAACCACTGGTGTACTATAAGACATAGT  
AGAAAATTTTGGGTAGAGAGAAAAGTGAATTCACCCATTATGTCCTGAGAGTCCCATATTCTCAGATCAATG  
GCCTCTCTCCAGTAAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAACATAATTTCTCCGCCACTTGCCACGGC  
AATCAGAGATTATGTCAATTCTCTGTTGGTCCAGGTTGGGGTAGGTAGTTTGCCTGGAACCTTCTAAGCTATGACC  
CCCCTGGATGTAGAAAACATACAGAAGAGAATTGATCAGTCTAAGTTTCAAGAACTGAATTCCTGTCTCTCTCC  
AAGAAAAGTCCCTAGACTGAGTGAGAAGTCACTGGAGGAAAGGGATTCAAGTTCTTTGTGGCATTTTCAAGAACAT  
ACCTGGATCCGAACATGATGTCTCTTTTGGCAAACTGTTGTCTCTCATTCACTCACTACCTTAGGTCTAGAAGT  
GGCTAAGCAATCACAGCATGATAAAATAGATGCTCAGAACTATCTTTCCCTTCCATGAATCTATTTTAAAGT  
AATTGAAGAAGAAATGGCAGCAAGTTGACAGGCAGCTGCCTTCACTGGCATGCAAAATATCCAGTTTCTTCCAGGGA  
GGCAACACAGATATTATCAGTTTCCAAAAGTAGATGATGAAATCCTAGGGTTTATTCTTGAAGCCACTCCACTAGG  
AGGTATTCAAGCAGCCTCCAGTGTCTTGCNAATCAGCAGTTGGACTTAGCATTCTGTAGAGCATATGAAGCTGC  
AGCATCAGCATTGCAGATTGCAACTCACATGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTGAAGCTGC  
ACAGATCTTAGCTCAGATCTTCTAGTGTACCCACCAAGCGCTTGGGATCTGAGCAAAACATATGATGACGCTC  
ATATATTGTGAAGCTGCATTGTGATGAAGTGAAGATGGCTGCCCATACCATGGGAAATGCCACTGTAGGTCTGCTG  
ATACCTCTGGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAGAGTGG  
AACATTATTTGGAGGAGAAGTATGCAAGTAATTTAAAGAGCGTGAAATTAACACATAGTAAAAATTAAGGACAAAA  
AGACATCTATCTTATCTTTTCCAGTACTTTATGCCAACATTTTCTTTTCTGTGAAGGTGTTTGTAGTTTCCAGATA  
GGGCTAATTACAAAATGTTTAAAGTTCTACCCATCAAAATTACAGTATAAAGATTAATTTGGCTGTGTAGAACTCTG  
TCTTTTCTAAAGATTTTGGGTAGATAGGAAGCCTGGTACAAACAATTTAAAGCTTTCTAGATCACATATTAGTCT  
TAAGTTGTTTTCTGTTTCTCTGCTTTACTTATGTTTTTACAATCTCCAAAACATAGAAAATTTCTAATTAGGATAT  
AAGGAGTATTACTGTTCAATAGAAATAATATGCATCCCTCCTTTATACCTAGGACAGAATTAACACTTTGTTACAC  
ATTCAGAACAGTGATGTTGTTCTTTTGTGATCTTTTATCTCAGTATCTTTTCAAGTTCACCATCTGTGCCATATT  
TTTGCTCATATTTTCTTACTTTTCTTTGTTATTTATCATGTCTGCAACATCAATCATAGTAGTCTAGATCAATG  
CAACTCAAAGCACCAGTCTACAAAGCTTTACTTATCCACAGGCAAGATAAGCATGCACAAGAAATTTAAATCTAGA  
GATACTTTTGTAGTCAATGCAAGACTTTGATTTTTTATAGCAAAATTTTATTAATAGCTAAAGCAATGTATTGATTT  
ACACTCTGATGCAAGTAAATTTATCTCTTCACTGCTGGTAGCAACCAATTCATGAGCCAGTACCTGTAGCCACAT  
TTTGAGAAACACTTCTTTGGATAATAATAGATATCTCTGGGATAGTGCATGTTCCACCATCTATTTTGTGAGATAAT  
GGGGCCTTTTAAAAAATAATACTTTTGGCTTTCATGATATATTGTATTTTGTGAAAGTTAAGTTTGAACAATATAGA  
CTCTAAAGAGCAAAATTAATTTTTTAAAGCCATAAGAAATTAATCTATATCCAGTATCTGTATGTCTGTATAAAG  
CAGTGATATATCATGTTTTCATTTCTGTGATTGTAAAGTCTTAACTGCAGAGGATTTGTGGAAAGTAGT  
AGCCTTAAAGCATAATAAAATATGTCTCTTGGGTACTCCCTCTGGCCATTACCACATCTTAGATTATATGTGTC  
CATCTTTGACGTTTCTGAGAGTAATTTTATTGTTGTTCTCTGAAATGTACATGTATACATGTACCTACTGAGT  
GCTATGTGATTTTAAAAATGATTACTGTAGAAATGCTTCTGCAAAATCAATAAAGTTGTGTAATTTGAACAGTG  
TTGTGTGGTCTCAGAAACATGTTGTTCTGTGTGCTTTATCTTGGAGTTGCAACAAGTTAAATATTGTATATG  
AACACCCCTTTTCCATTTTCATCAATTGAACTCACTTTGACATTTCACTGGGTATAATTGAAAATATTCTGATTATG  
TATGGTTTCTTCTGTTTGGAGGACATGTTTTATTGACTGTGGAATCTAGTCTTAAATTTAAGAGGAAATTAATCT  
GTAACAGATACCTTATTCGTTTAAACGATTTCTATTCCACTACTAATGGTTTTTTTACTTTTGTGCTTTCTGAT  
TCTTAGATTCTGAGTTAACAAGCATAAAAATAGATTTTATATTGCTGGGGGTGTACCAACATAGATACATTGA  
CAGATCCATTGATAGAAGTTTGGGAGATGGACTTGAATCTTAGTCTTAAATAAAGACTGAACCTGTTTAAACTA  
ACTTGATAAAAAATCACTGTCGTTTTTGGGAACTGCAAGTATTAATAGATTCTGTACTAAGCTAGTATTAACAC  
TGGAAAGTTAGCAAGACATATAGATGCTCTTGACCCTTTTTTCCACACAGTCTCAGATGTCATGTAAAACTTTAG  
AATTGATCTCCTTTCTGTCTCTTTCAGTAAGAAAGTAATCTAAGTTTAAATTTTGGTAGTAGAAGTTTGAAGATA  
ACAACCTGACTAATTTTGCTATACCATGATAAATGCTACAAAAAGGGATTTTTTTTTTTTGAATGAAGTTTGC

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**FIGURE 319B**

CTCTTGTCGCCAAAGCTGGAGTGCAATGGTGTGATCTCAGCTCGTGCAACCTCCGCCCTCCAGGTTCAAGCAAT  
TCTCCTGCCTTAGCCTCCTGAGTAGCTGGGATTACAGGTGTCTGCCACCAACCCCTGGCTAATGTTTGTATTTTAA  
GTAGAGACGGGGTTTCACCATGTTGGCCAGGATGCTCTAAGCTGACCTCAGGTGATCCGCCACCTCCGCCCTTC  
CAAAGTGCTGGGATTACAAGCGTGAGCCACCATTGCCCTGCCAGGGATGTAACTAAAACAGCTCTTTCAAACCC  
TAGATCTTCAAATGATGATGAATTTAAGACTAGGAGACTGGAATATTGAAGCCTATTAAAAATACATATCCTTG  
CGTTGTTAGGTTAATAACTATCATGGTGACAGGTGTATAAGTATTGGCTTCTTTTCAAAGAAATGTTATTTTTAT  
TATAAGGACTGGGACGAGAAGTGACCTGTGATTGGTCGTATTTTTCTGTGAACAAGATTCTCTCTTACCTGAGT  
TGTACCTAGGTTTTTTATAACTACATCAAAAAGCTTTTATATTGTACTTATTAATGTTATGGCAGTTACTTATA  
GAAGCTTGGTACTATATGGATTTTTTCATTTTTAACTTTCCCTTCTATGTTCCAAATTTTAAATTTAGTAAGTC  
AACCTTTGCTGTACAGTAGTAGTACTGTATGGACAAAACAATGGTAACAATTGTGTTATTTTAAATGGCCTTT  
TTCCACATCTAAATTTGTTCTTACTGAAAAGCTTTCTGTGGGAGCATTGGAACCTCACTTCATGTTCAAAGCTATGA  
GTCCCGAGATAAAGGAAAAGGAGAATAGGTAGGAAGAAGTGGTTGTCAGATGAAAGGGTAAGGGAGATAAGCAAAA  
TGGGATAAATAATGAACAGTTTTCAAGACAAATTCAGTGTAAACAATTTTGGACTAGTGAGGTATTACCAGTAG  
ACTTGTTTTTACCTTTTTAATGTGCCTAAAACCCAGGGTTCCCGATTAAATATTAGGATAACATCATCATTATTGA  
GTGTTTCAGAGAGTAATGGTTTCTCCAATGTTATTTCAGACTCTAAAATAGAGCTCAAGCTTGAGAGAGAGAA  
CCACTAAAGGGCAGAGCAAGAGCAAGTAACTAACCACTCAAGCAAGAAGAGTTTGAGCACAACTCAGGTATCTTTAGTT  
TTATTACCACCGTGTACAGGTATAAATAACCTCCTGACAACTAACTCAATGTTTATGCTTTTATGCTTTTATGCTT  
CCAGATTCCAGCACGCTCAATAAACTTAATTCGTGTTTAAATGATACTAAAACCTCAAACTTTGTGGGTTTTGTG  
CAGTAGTGTAGCCTGTGATTACGCAAAAAGCAAATTTTAAATGTCTCATTGTTGTTGAGTCTGTGCTAGATGTA  
GTTCAAAGCCAGTTATATGGTGTTTTGAAGAAATATTTTAAAGGTGGAAATATCTAGACACTTTTGATACAAAT  
TCTTTTAAAGGCAATGGAAGGGTTTTATATTGTGCTTTGCTCTAGATTTCTGACTTTGATTTTTATGTTTGC  
CTGCTTGTCTTCTCGCATTTCTTTCCATAACTCAGAAGCTAGTCTGGTCTTAAGACTACAGTTTTCTTTCCCTTAT  
TTCAGATGAAAATTTACCTTTTTCTATTGTGGGAGAGCGTTCAGTTTTTCAAAGGGAAATGTAGGAACTAAG  
GAGAAAATAAGCATAGGTATAAATGAACAGAGAAACAAATATTGACTAACCTAGTATTGTTTACAGAGAACAAAT  
TATTGACTAACCTAGTATTGTTTACAGAGAACAAATATTGACTAACCTAGTATTGTTTACAGAGAACAAATTAT  
TGACTAATGCGACATTGATTGGCTGATGCTTTATAAGACAGCTATTCTAGAGTCATTTTCTTACCCTTGCTA  
TGCTAGCTGGATGATTTGTCTAGTTGGTTATCTTTTCCATCTCCTATTGTCACTTTGTGTGTTTGTGTTGTGAC  
GGAGTTTTGCTCTTGTCAACCCGGGCTGGAGTGCAGTGGCTGTATCCCATCTCATTGCAACCTCCACCTGCTGGG  
CTCAAGCGATTCTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACATGCCACCCTCAGCTCAATTTT  
TGATTTTTTAGTAGAGACGGGGTTTACCCTGTTGGCCAGGCTGGTCTCAAACCTGACCTCAGGTGATCCACC  
TGCATTGGCCTCCGAAAGTGCTGGGATTACAGGTGTGAGCCACCGCGCCACGCTGTTTGTGCTTTTAAATCAA  
ATCCTTAGAGGAATTTATCTTGATTCTTAAAGCAAGTCAGTCTCTCTCTTATTGATGTAGTGTGATTTGTA  
ATTTCAAGACGATTTGTTAGAAATGAGCTTTGTGACAAGAACATACAGAGCATTGAATGAATGAAGACTTTGTGA  
ACATAGAAACCAATACTGGAATACATGTTTATTGCCCTTTTATGTAGTAGTCTTAACAAATAGCTTCAGGAGCA  
TGCTGAAGAAATAAGGAAATAGGACCGGGCGCAGTGGCTGACGCTGTAATCCAGACATTTGGGAGGCCGAGCGG  
GCGGATCACTGAGGTCCGGAGTTCGAGACGAGCCTGACCAACATGGAGAAACCCCTGTCTCTACTAAAAATACAA  
AATTAGCCAGGCAATGGTGGTGCATGCCGTGAATCTTACTGCTACTCCGAGGCTGAGGCAGGAGAATCGCTTGAACC  
TTGGAGCGCGAGGTTGCTGTGAGCCGAGATGCGGCCATTGCACCTAGCCTGGGCAACCAAGAGCGAACTCTGTCT  
TCAAAAATAAATAAATAAATAAATAAATAAATAAAGATGGTCTAAGGGATAATTGAGTTGAGGGAATCTAACTGA  
GGAGCAGAAATAAATAGTCAAAGGAGTGTAGGTTTATGATGACAGGCAGAAATTAGACAGTGGCTTTATTGCAGAAA  
TTTAAACATGTAGAAGAGTGGAGGGAAGATTTAATGACCCCTCAGCTAGTGTGCCACAGTTGTGACAGTTGTGAGTGT  
TTACCAGTTTGTGTTTATCACCACCCACACCTCCAGCTTTTAAATTAATCTTTTTTTTTTTTTTTTTTGTGAGACA  
GAATCTCACTCTGTGCGCCAGGTTGGAGTGCAGTGGCACAATCTCGGCTCACTTGCACCTCCGCCCTCTGGGTT  
CAAGCATCTCTCGTCTTCAACCTCTAGTAGTGGGATTACAGTTTCCCGCCACCATGCCAGCTAGTTTTTG  
AATTC

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**FIGURE 320A**

GCCATTTCCTCCTCTGTGTTTCTACTCCGGATTCTCCATGTGTGGACCCAACTGAGGAGCCCGGAGCTGCCGCTGG  
GGGATCGGGGCGGGGGGACCCGGGGGAGCCGCTGCCCGGGCGCCCGCCCTTTGTACAGGCCGCTCCTCTTCCC  
GGTCCGGGGAGGAAACGAGAGGGGGGATGTGAACAGCTGTGGAAGTCGGAAGTCTCGGAGCGGGAGCGGGCCCCC  
GCCAGGCGCCCCAGCCAGCCAGCCAGCCGCGCGCCGCTCTCCCGTCCAGCCAGCCGGGCGCGGGGAT  
GTTAGATCGGAACACGGCTCCATCATCACCAGGCGCGGAGGGAAGACGCCCTTGTGTCTACCAAGCAAGGCCCTGG  
TCTCCAAGTCTCTCTCTAAGAAGCCTCTGTGGACGTAAACATCTTCAAGGCCCTTTCTGTGTTTTCGGCCGACGC  
ATGTTGGCCAGCTCAAGTCTCTCTCACTGAGCTCGCTGCGTATAAGGAGGAACAAACACCATTGTCTAAGTCGGATG  
TGCTCCAGTGTCTCCAGTACCAGTCTTACCAGATCCAGGGACCTGCCTGTCTCCAGAGGTGACAGAGGAAGATC  
AAGGAAGATCTGTGTGGTCATTGACCTCGATGAAACCCCTTGTGCATAGCTCCTTTAAGCCAATCAACAATGCTG  
ACTTCATAGTGCCTATAGAGATTGAGGGGACCCTACCCAGGTGTATGTGCTCAAGAGCCCTTAGTGGATGAGT  
TCCTGAGACGCATGGGGGAACCTCTTTGAATGTGTCTCTTCACTGCCAGCCTGGCCAAAGTATGCCACCCCTGTGA  
CAGACCTGTGGACCGGTGTGGGGTGTTCGGGGCCCCCTATTCCGTGAGTCTTTCGTGTTCACCAGGGCTGTCT  
ACGTCAAGGACCTCAGCGCGCTGGGGAGGGACCTGAGAAAGACCCCTCATCCTGGGACAACTCGCCTGCTCTTTACA  
TATTCCACCCCGAGAATGCAGTGGCTGTGCAGTCTCGTGTGTTGATGACATGGCAGACACTGAGTTGCTGAACCTGA  
TCCCAATCTTTGAGGAGCTGAGCGGACGAGAGGACGCTTACACCAGCCTTGGGGGAGCTGCGGGCCCTTAGCCT  
GCCCTGCTTCCAAGCGACGGCCATCCCACTAGCGGACTTTCCACACTGTGCTTTACGATCAGCGTGACAGAGT  
AGAAGCTGGAAGTGCCTCACCACACGGCCCGGAAAACAGCGGGAAGTAACGTGAAAGAGCCTTAGGACAGCTTAGAT  
CGCGAGTGGGCGAATGCCACACCAATGATACCCAGAGCTACCTGCCCCAACCTTGTGAGATGTGTGTTTGAAGT  
TGAGAGAGTGTGTGTTTGTGTGTGTGTTTGGCATGAACGTGGCCCCAGTGTATAGTGTTCAGTGGGGGAGAA  
GCTGAAAGACCAAGACTCTTCCCAAGTTAGCTTGTCTCTCTCTGTCACTTAAGAGCCACTGAGTTGTGTAGG  
GATGAARACTATTGAAGACTCCATTGCGAAACCATGGCCCTTTCTCAGTGTGTTGAAGGCCCTATGCCAAGGATAAA  
GGAAGGGTATGCCCTTGGGTACTCCAGGCATACACCTTTCTGAAATCCTTCTCCAGCCAGCTGCTGCAGACAAAA  
GTACACATCTTGGGAAGATGAGAACTGTTTCCAGACCAGCATCCAGTGGGCCATCAGGCTCTTGTGGCCCAAAGG  
CTATGCTTGCCTCCGGCTGAGTGCCTGGGATAGGCCCTTTCTATGCTCCCCAAGGCTGGGGTGTGAGCCTGCC  
TTCTCACCACCTAGCCATAGTCTCAAACCTGTGGGGAAGGAGGTTTCTCCTGCCGGGAAGAGGACAGATAA  
CTGATTTCCGTTCTTTTGAAGTGTGTTTAAATTTCTTTCTAAACACAGAGTGTGGGCTGGTTTGTCTTGA  
CAAAGTTACAGTCTGGGCGCTGTAATGAATGTCCGCGCGCTGGGGTTCGAGGGAAGAACAAATCTCAAAGCG  
TGGACGTGTGTGCCCCATGGCTGTGGATCAGCTAAGCTCGGGATCATTTCCATAAGTCTGCTTTCTAGGGAATCT  
CTGCTGGTGTGGTGAGGACTTCTGTTTCCAAAGGCTGGGAAAACTAAGCTGTCCAGCCCTTCCATTTCTT  
GGGCAAGGCTCTTTTCCGTGTGTGCTTCCCCAGGGCGCTGCTGTACCGAGCTCTGTCTGTTCCAGCCTACAT  
CCTTCTGGGTGTGTGCTTTTCTCTTAAGGGCCTCAGAACTCTTGTCTTCTTGGGTGAGGGGGAATGAGTGT  
CTTGACATGTGACAGCCTAATGCGCATGCTTTCTGCTCTGTGTAACAGGATGAGTGAGCCCTCAGACCTGCAC  
TCTGGGTGTCTCCTGCTTACAAAGGTTCTTAATAGTGAATGCTTTAAATTAAGTCAACAGAAATGGAAGTTT  
TCCCAGGGTGGAAAAATAGAGGAAGTGTGCTGTGAATTTGGGAGCACAAGGGGCTCCCCAAAAGGAGGCCCACT  
CAGCATCAGTGCCTTAATCTGGGCTCCTCGGGGTGGGTGGGCTCTCTCCTCCCTCCCTCTCTCTCTGGGT  
GGGAGGGCGCTCTGTTCCTATCTCTGTGTTCCCTGGAAGGAGGTATCAAAAGCATTTGTGAATGCTTTAGGT  
GACGGGACACCACCACTCAGGACTCTTCCCATCATCCCTCCATTGGCCACCCCTAGATCCAGCCTCAGGAAC  
TAACAAGTGTGAGAAAGCAGGTGGGTGAGCAGCAGCTCTGTGCTCATCAGGCTGGCTGGCTGGCATTTTCTC  
TAGCGTTGTGGTGCCACCTTCCCTTCTGTGCCAAGGTTATAAGGCCCTGTCTTTCTCTTTGGAATCATAAAGT  
GAACAGAGTCCCCAGAACTCATGTGGHCATTTCCAGACAGCATCACTCCCGGTGCCATGGGGTCCGGGTGTAAC  
TAAAGGGAAGGAGCCCATCTGTGCTACCCAGAAATACTGTCTCTTGAAGGAAGCAGAGCTCAGACTCTTAG  
AGCCAGCTGTGGCTCTGGAGCCAAAGCCTGAGCTAGGCTGCTATCCATAATTGAGGAGGGGGCTCTCTCCAA  
GCCCCACCTTAAGGTTAGCCCTTGGAACAAATCTTGTGCGCTTAGGCCAGCCAGGCTTTCTGACTAATAAAG  
CAATAAGAGGCTCTAAGCTGACTGAGTGTGAAGGACCCCTTTCCGCCCTCCCTTGGATCTCCATGTTTCTCCAGAT  
GGCGGAAGAGCATGTGCCACCCCTTTCTTAACAGACTGTGCCAAGTGTGGCTGGGACCATGACCAAAGCC  
CAGGATGGCTTGGTGGAGTGTCCCTGTGCATCTGCATGAAGCCCTTGCTTTTAGGCCCTACTCCCATCAGAA  
CCCTGCTGCCACCTGCAACTCCCCCAACAATGCCATTCCCACTTGGCCAGAGAAGCTACTCGGCCAACC  
TAGCCAGGGTCTGTTCTGTGGACAGAGCAGCCCTAGTCATTATTGCTGTGCGGTTTCCAGTTTACCGTGTGT

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**FIGURE 320B**

TTAGGGTGAGGGATGATTGTAAAAATTTGCTCCTCAAAGGAATCAGGCCAGACTCAATTTGGGAGGGCAAGACAG  
GGAGGAGGCCGCTTCATCCCAGACTCTCTTCTAGGGCTTCCCACCATCAGCCCCCTCCCACTTGAGACTGGTCTTT  
GGGAGGCAATAGGCCACCATGCCGTGGTCAGCACCAATTCAAGCCATGCCAGGAATCTGCCCTACCTGCCAGGTCA  
GTTCTTTTAAGGTGCCTCTTCAGGGACACAGTGTGTCTCTCTGATTGGGCTTCTAAATCAAAGCCTGATGTTG  
TGTCCTCTCATAGGGGGAGCTTTGGACACAGGACCAGTTTGGAAAAGGGTCAGGTAAGGGTTTTCCACTCTGCAC  
ATTGTAGAGGGAACACTCTGTAGGCCCATGGGTCCCTTACTAGAGAGGTTGAGTGAATTTGCCCTCAGTTAACAT  
GGGACCTTCTGTTAGCTTCCTCTTGCTTCCCAAAGATTTTAAGCATTTTGTAATGTATAAACTCACCTCTGGT  
AACAGTGGCCCAGACGCTGCTTTGTGCTAAAAGCATGGGAAATGTAAAGGCAGTCTTTCTCTGGGAAATGGATGC  
TATTCTATTCTGCTGCCCTTACCTGTTCTGAGGCCTCATTAGAAAAGAAAATCCCCCAGAAAGGCTGTCTGGCA  
CCCAGTGTCTAGCCAGGCCAAGTATATGAGAAAGGTAAGTCCATTTTCCCTTCAGGTCTCAGTGGATTACTT  
AACCAGTGTCTGCCCTCGGTCCCTTTTTCTTAAACGGGTTTAGTTCTGTCTTTTTTCTCCTTTTTTCTAAATGCT  
GGTAAATATTTACATTACGCCAGGGAAGAGGAGGCCAGAGGTCGGGCCAGCTGCCCATCTCTTTTAAACGTTGTAG  
GGCCTGCCATGGAGCGGACCTCTCTTTGGGCCTCGTGAGCTTTTTTGCTTATCATGTTCCATTTCTGTGCCG  
TTTCCCTTCAAGATGCCATTTGGAGGGTAGGGATCTGCTTCCCACTGTGACTGGGTATGGGATTCTGACTA  
CCTTGCTTACAGATTTCATGGTTTGATAAATTTGTTGTATTCCAAAACCTTGAATGCAGGACGCCATTAAAGTGTCT  
GTTTATATTTTGAATATTTGTATTACTTACAATTAATTAATAAAGTGGGTTTAAAAAACCTTCCAGGAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 321**

MEHGSIIITQARREDALVLTQGLVSKSSPKKPRGRNIFKALFCCFRAQHVGQSSSSTELAAYKEEANTIAKSDLL  
QCLQYQFYQIPGTCLLPEVTEEDQGGRICVVIDLDETLVHSSFKPINNADFIVPIEIEGTTHQVYVLKRPYVDEFL  
RRMGELFECVLFTASLAKYADPVTDLLDRCGVFRARLFRESCVFHQGCYVKDL SRLGRDLRKTLILDNSPASYIF  
HPENAVPVQSWFDDMADTELLNLIPIFEELSGAEDVYTSLGAAAGPLACPASKRRPSQ

## FIGURE 322

CGTCTGGTTTCAGGGGCTAGAAAAAGCGCTCGATGCCGGCGCAGTGATGAGTCTTAGGAGGCGCTGGCTCTTTGG  
CGGCTCGGAGGAGCGGCTGCTGCTGCTGCTGCTGCTGGTGGCCCCCTTTGCAGATGTATTGCTGTCCTTGAAT  
ATTAGCCCATTTGAAAACGCCTGGGAAGTTCAGCCATCAGTATGTCCTCAAGTACAAACTTATTATGTTAAGACATG  
GAGAGGGTGCTTGGATAAGGAGAACCCTTTTTGTAGCTGGGTGGATCAGAACTCAACAGCGAAGGAATGGAGG  
AAGCTCGGAACTGTGGGAAGCACTCAAAGCGTTAACTTTGAGTTTGATCTTGATTACATCTGTCTTAAATC  
GGTCCATTACACAGCCTGGCTGATCCTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGGAAAGCTCCTGGCGTC  
TAAATGAGCGTCACTATGGGGCCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAACAAG  
TGAGGCTCTGGAGAAGAAGCTACAATGTAACCCCGCTCCCATTTGAGGAGTCTCATCTTACTACCAAGAAATCT  
ACAACGACCGGAGGTATAAAGATGCGATGTGCCCTTGGATCAACTGCCACGGTCGGAAAGCTTAAAGGATGTTG  
TGGAGAGACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTTCTGATATCTG  
CTCATGGAATAGCAGTAGGGCACTCCTAAACACCTGGAAGGTATCTCAGATGAAGACATCATCAACATTACTC  
TTCCTACTGGAGTCCCCATTCTTCTGGAATTGGATGAAAACCTGCGTGTCTGTGGGCCCTCATCAGTTCTGGGTG  
ACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAGTGAAACAAGCTAAAAAATAGTCTTT  
TCTCAACTGTTGGCTAAGAAGAAATGCAAAAGAAGTGGCATAGGAGTGTGTTATGGGTGCTGAACTCTCTCTTT  
TTTCCCGATTTTCCAGAGCTAGGCTGTGGAGTAGAGTTTGTATAGGTAAGTAACTTATTGTGGCCAGAT  
AAGGCTTTAGGATGCCTCAGTGCTTATGTCTAGCCTTATGAGTTAGCTTTTCTTGCTAGCCCCCTAGTCGGTCAC  
CAAAC TAGTAAC TAGTGGGGCTTAATGAAGGTCATAAGTTTCTGAGATGGGAGAGCAACAAGTAGAGATGAAGTT  
AAAGGTATTTATCATTTCAAGAAATCATTATTGAGTCACCATTGACAGGCACATTCTCATCAGTAGTTCACITTA  
ATATTTAATAAGATTTTCTGGGATAACAGTAAGGGATATTAGATAATATACCGTATGTATTTATTACTAGTCTTT  
TCCTCTAGGAAAAGGGTACTTTGATAATTAAAGGCCAGAGGCCCATTAGTTGAGAAAGTCACAGATATATTTCTC  
CAAGAAAGCCACAACCAACCAACCAATGACAGAAATGACAACAAGGCCCTTTAACTTGCTCTCTAGTTTAGAGA  
CATCTTTCATTGTACATTTAGTAGAATTCCTCTTTGGCCACAAGAATAAGCAGCAAAATAACAACATATGGCTGT  
GAGGTTCTCATTTTGGTTTGTGTTTTAATTTTTTGAACTTTGGGTACCTGTAATTAGTTTAAAAATAAAGTTCCTGA  
TAATAAGTGACTGAAATGGCAAAAAAAAAAAAAAAAAA

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**FIGURE 323**

MSKYKLIMLRHGE GAWNKENRFC SWVDQKLNSEG MEEARNCGQLKALNFEFDLVFTSVLNR SIHTAWLILEELG  
QEWVPVESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVT PPPIEESHPIYYQEIYND RRYKVC DVP LD  
QLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSSRALLKHLEGISDEDIINITLPTGVPILLELDEN  
LRVGFPHQFLGDQEA IQAAIKKVEDQGKVKQAKK



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FIGURE 324A

GGCGCGGCGCGCCTGGAGCCCGGGAGCGCGCGCGGTCCCAGGCCAGCCGGCTCTCTGGCCTCGCGCTGCA  
CATTCTCTCTGGCGGCGGCCACCTGCACTAGCGTTTCGCCCGAACATGCGCAGACGGAGCAGCAGGAGGGAGT  
CGCGACTCCCGTCTCTATTACCTCTGCTGCACTGCTGCCGCCCGGAGCTCTCTGCGAAGTCTGGACGCGAGGCG  
TGCAACGCGCGCAGCGCCCTTGCCGCCAGGACCGGGGCTTCTCTGTGGTCAGGCGCAGCCGCGCAGCTGCGGC  
TGTGGGCGCGCGGGGATGCCAGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCC  
TGCAGCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCGCCAATACAGATGGTGGTGCATGGG  
CTGGAGAGAAAGCAACGTGATCGTGGCCTTGGCCCGAGATAGCTTGGCATTTGGCGAGGCCAAGACGAGCATGATG  
TGTACGTGTCTTACGACTATGAAAAATCATTCAAGAAAATTTACAGCAAGTTAAACTTTGGCTTGGGAAATAGGA  
GTGAAGCTGTATTCCGCCAGTTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCC  
AGTACCTCTGGATACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCAATTTCCGGCAGCTGATCTCC  
TCCTACACAGTAAGGCCCTCAACCTTCTCTTGGGCTTTGACAGGTCCACCCCAACAAGCAGCTGTGGAAGTCAG  
ATGACTTTGGCCAGACCTGGATCATGATTGAGAACATGTCAAGTCCCTTTCTTGGGAATTGATCCCTATGACA  
AACCAAATACCATCTACATTGAACGACACGAACCCCTTGGCTACTCCACTGTCTTCCGAAGATGACATTTCTTCC  
AGTCCCGGGAACAGGAAAGTATCTTGGAGAGTGAGAGATTTTACGTTCCGGGACAGTACATGTTTGTCTA  
CAAAGGTGGTGCATCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCTTTGGCCGGAAGGCCA  
TGAGAGCAGCCAGTTTGTGTCACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAAGGTGT  
TTGTGTGTGTCAGCCACAGTAAACACGCAACCAATTTATACATCTCAGAGGACAGAGGGGCTGAAGTTCTCCCTGT  
CCTTGGAGAACGTGCTCTATTACAGCCAGGAGGGGCCGGCAGTGACACCTTGGTGAGGTATTTTGGCAATGAAC  
CATTTGCTGACTTCCACCGAGTGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAAATGGTTCTATGAATG  
AGGAGAACATGAGATCGGTCTACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTACAGG  
GATATGGAGAGAAAATCAATTGTGAGCTTTCCAGGGCTGTTCCTTCTCATCTGCGCTCAGCGCCTCAGTCAAGCTC  
TCAACCTCCAGCTCCGGAGAATGCCATCTCTGTCCAAGGAGTCCGGCTCAGGCCTCATCATCGCCACTGGCTCAG  
TGGAAAGAAGTCTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGTGAGCCAGGTGGCGAGAGGCATTC  
CTGGACTCTACTACTACATCGGAGACCAACGCGGAATCAACGCGGACTTCCAGGCAATGGAAACCAACAG  
AGCTAAAAATACAGTACCAATGAAGGGGAGACCTGGAACAACTCATCTTCTTGAGAAAGCCAGTGTTTGTGTATG  
GCCTCTCACAGAAGCTGGGGAGAAGAGCAGTGTCTTACCATCTTTGGCTCGAACAAAGAGAATGTCCACAGT  
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGACAGAGAATGACTACAAGCTGTGGTCAC  
CATCTGATGAGCGGGGAATGAGTGTGTGCTGGGACACAAGACTGTCTTCAACAGCGGACAGCCCCATGCCACAT  
GCTTCAATGAGAGGACTTTGACAGCCGGTGGTGTGTTCCAACGTCTCTGACCCGGAGGACTATGAGTGTG  
ACTTCGGTTTTCAAGATGAGTGAAGATTGTGCTATTAGAGGTTTGTGTCCAGATCCGGAATTTTCTGGAAAGTCA  
TCTCCCTCTGTGCTTGCCTGTGGGTTCTACTTACAGGAGAACGAGAGCTACCGGAGATTTCTGGGGACA  
CTTGTAGCGGAGGAGATGTGAAGCGCGACTGGAAGGAGAGCTGCTCCCTGTCCTTGGCAGAGAAGAACAGT  
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACTTGGCTCGGAGGCCACCGAGCAGTTGCTCTCA  
CCGGGCTACGGGACGAGTGTGGCCTGGACTTTGACTATGAGCAACAAGTGTGTTGATTGGTCCGACCTGGCCTTGG  
ACGTCTACCGGCCTCTGTTTGGAGAACACAGGCGAAGGAGTATCAATCTTGGCTTGAAGTGAAGACGATG  
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGACAGGCTTCAAAAAGATTGAGGTAGCTA  
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCCTCTGTGCTTGATCTGCCAGGCTCTGTGCTCTGTGC  
CCCAAGAGGGGGTGTGTTCTGGAGACTGGGGAGACTGAAGCCTGGGATTTATTCGGAGCAATATGAGTGGTT  
CTGCTGCTATACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACACGACCTGAGGATTTACT  
GGACGGATGCTTACCTGGAGTGCATAGAGCGGATCAGCTTCAAGTGGCCACGAGGCTCTGTCTTCTGTGACAAAC  
TCCGCAACCCCTATGCCATTGTCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTACAGCTCAGCATATTCC  
GAGCTTCAAAATACAGTGGGTCAGATGGAGATTCTGGCAACACGCTCAGCGGCTCATGGACATGAAGATTT  
TCTACAAGGGAAGAACACTTGAACCAATGCCTGTGTGCCAGGCCATCGAGCTGTGTGCTGTGCCAAGGCCA  
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT  
GCCCTCAGGCGTATCAGCTCAAGACAATACCTGTGTCAAAGAAGAGAACCTGTCTTCGCAACAGTATCGCT  
GCAGCAACGGGAATGTATCAACAGCAATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACTATGAGCGATGAGA  
GAAACTGCCCTACCACCTCTGTGACCTGGACACCCAGTTTCTGTGCCAGGAGTCTGGGACTTGTATCCCACTGT  
CCTATAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGTGAAGATCATTGTGAAATGCACCACTGCGCGGA

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**FIGURE 324B**

GTGACGAGTACAACCTGCAGTCCGGCATGTGCATCCGCTCCTCTGGGTATGTGACGGGGACAACGACTGCAGGG  
ACTGGTCTGATGAAGCCAACTGTACCGCCATCTATCACACCTGTGAGGCCCTCCAACCTCCAGTGCCGAACCGGGC  
ACTGCATCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGATGGTTCAGATGAGGATCCAGTCAACT  
GTGAGAAAGAGTGCAATGGATTCCGCTGCCAAACGGCACTTGCATCCCATCCAGCAAAACATTGTGATGGTCTCG  
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTGTACGCACCTTCATGGACTTTGTGTGTAAGA  
ACCGCCAGCAGTGCCTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGGTCCGATGAGGATG  
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCACCAAGGTATGTGATGAGTTCCGGTTCCAGTGTCAAGATG  
GAGTGTGCATCAGTTTGAATTTGGAAGTGCACGGGATGGATGATTGCGGCGATTATTCATGATGAAGCCAACTGGG  
AAAACCCCAAGAGCCCAAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA  
GATGGAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTACATATTTCTTC  
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCCAATTACTACCGCTGCACGAGTGGGACCTGCGTGTATGGACA  
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCTTGCTTGCAACCGTCA  
CTGCTGCCCTCCACTCCCAACCTTGGCGGATGTGACCGATTGAGTTTGAATGCCAGTCCCAACCCGAAGACGTGTA  
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTTGCCCCACACACA  
GCACCTTGACTTGATGTCAGCAGGGAGTTCCAGTGCAGAGCAGGGGAGGCTGCATTTGGTCTCGGAGCGCTGGG  
ACGGCTTCTGACTGCTCGGACGAGAGCGATGAAAAGGCTCGACGTGATGAGTTGACTGTGTACAAAGTACAGA  
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGGCCAAAAAATGCCCTCTGCCTT  
CTTGTTGATATAATGTCTACTACAGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA  
CAAACACTGTATTAAGTCTTGAAACAGATACCACGTATCAGGTAAAGTACAGGTTGAGTGTCTCAGCAAGG  
CACACAACAGCAATGACTTTGTGACCTGAGGACCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT  
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCATCCACACCATGAGGCTCATCCGTG  
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCTCCAGAGGGCTGCTAGTAACTTTACAGAAA  
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGGGTGACTAGTCGTGGAATAGGAACTGGA  
GCGATTCTAAATCCATTACCAACATAAAAGGAAAGTGATCCCAACACAGATATCCACATTGACAGCTATGGTG  
AAAATTAATCAAGCTTCAACCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG  
CATTTGACACCCACAAGCAAGAGAGGAGAACTTTGAACTTCCGAGGAAGCATATTGTACACAAAGTTGGCAATC  
TGACAGCTCATACATCCTATGAGATTTCTGGCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGCGATTGTGAGC  
ATGTTATGACCAAGAGGGGTCTGCCCACTGCGACCTAGCCTCAAGGCCAAAGCCATCAACAGACTGCAGTGAAT  
GTACCTGGACCGGCCCCCGAATGTGGTTATGTTATTTCTATGCCACGTCTTTCTGACCTCTATCGCAACC  
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTGAGTGAAGATGAGCAGTATTGTCTTCTGGTCC  
GTGATGTTGGTACCCTACCAAGGGGCTCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTCCAC  
CCGCTCACCTGCATGTGTTTCATACGGGCAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATCAGTCTCCTG  
ACCAGGACTTGTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAATCCC  
GTAACAGCACTGTGGAATACACCTTTAACAAGTTGGAGCCTGGCGGGAAATACACATATTGTCCAACCTGGGGA  
ACATGAGCAAGAGATTCCAGTACATAAAATACCAAGTTTTCATTATCAGCACTGACTGCCTTAAATAATCATACAG  
AAAATGATCATGTTCTTCTGTTTTGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAATGAAAGCAGGGGCTATG  
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAAATTTCTTTAAATTT  
CCAACCTGAAGATGGGTACATAATTACACGTTACCGTCCAAGCAAGATGCCTTTTTGGCAACCAAGATCTGTGGG  
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCGAGGCTGCGAGATCTACG  
ATGTTGCTGCTGTGGTGGTGCCTACTTATTCTGATACTGCTGAGCCTGGGGTGGGGTTGCCATCCTGTACA  
CGAAGCACCGGAGCTGCAGAGCAGCTTACCGCTTCGCCAACGCACTACAGCTCCAGGCTGGGGTCCGCAA  
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGTAAGCTGGTTTTCAGATGACGCTCC  
CCATGGTGATAGCCTGAAGAGCTTTTCCCTCACTAGAAAACCAATGGTGTAAATATTTTATTGTATAAGATAGTT  
TAGGTTTTATTTAAAGATGCACTTTGAGTTGCAATATGTTATTTTTATATGGGCCAAAAACAAAAACAAAAA  
AAAAA

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FIGURE 325

MATRSSRRESRLPFLFTLVALPPGALCEVWTORLHGGSAPLPODRGFLVVQGDPRELRLWARGDARGASRADEK  
PLRRKRSALQPEPIKVYQGVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPKSSDVVYSYDYGKSFKKISD  
KLNFLGLGNRSEAVIAQFYHSPADNKRYIFADAYAQLWITTFDFCNTLQGFSPFRAADLLLHSHKASNLLLGFDERS  
HPNKQLWKSDDFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDDFFQSRENQEVILEEVRDF  
QLRDKMYFATKVHVLHGGSEQSSVQLWVSFGRKPMRAAQFVTRHPINNEYIADASEDQVFVCSHSHNNRNTNLYIS  
EAEGCLKFSLSLENVLYYSPGGAGSDTLVRYFANEFFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTW  
EFLQAPAFGTGYGEKINCELSQGCSLHLAQRLSLLNLQLRRMPILSKESAPGLIATGSGVGNLASKNTNVYISSS  
AGARWREALPGPHYYTWDGHHGIIITAIAQGMETNELKYSTNEGETWKTIFIFSEKPVFVYGLLTEPGEKSTVFTIF  
GSNKENVHWSLILQVNATDALGVPCCTENDYKLVSPSDERGNELGLHKTVFKRRTPHATCFNGEDFDRPVVVSNC  
SCTREDYECDFGFKMSDELSEVCPDPEFSGKSYSPVPVPCVGSTYRRTRGYRKISGDTCSGGDVEARLEGELV  
PCPLAEENEFILYAVRKSIIYRYDLASGATEQLPLTLGLRAAVALDFFDYEHNCLYWSDLALDVIOQLCLNGSTGQEV  
IINSGLETVEALAFELSQLLYWVDAGFKKIEVANPDGDFRLTI VNSSVLDRPRALVLVPOEGVMFWTDWGD LKP  
GIYRSNMDGSAAYHLVSEDVWKVNGISVDDQWIYWTDAYLECIERITFSGQQRSVILDNLPHPYAIAVFKNEIYW  
DDWSQLSIFRASKYSGSQMEILLANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSRSCRPEDVSSSV  
LPSGDLMDCCPGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWWCDFDNDCCGDMSDERNCP TTI CDLDTQFRC  
QESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEYNCSGMCIRSSWVC DGDND CRDWSDEANCTAIYHTCE  
ASNFQCRNGHCIPQRWACDGD TDCQDGSDEDPVNCEKKCNGRFCP NGTCIPSSKHCDGLRDCSDGSDEQHCPELC  
THFMDFVCKNRQOCLFHSMVCDGI IQCRDGSDEDAAFAGCSQDPEFHKVCDEFGFQCQNGVCISLIWKC DGMDDC  
GDYSDEANCENPTEAPNCSRYFQFRCENGHCIPNRWKC DREND CGDWSDEKDCGDSHILPFSTPGPSTCLPNYYR  
CSSGTCVMDTWCDGYRDCADGSDEEACPLLANVTAASPTQLGRCDRFEFECHQPKTCIPNWKRC DGHQDCQDG  
RDEANCP THSTLTCTMSREFQCEDEGEACI VLSERC DGLDCSDESEKACSDELTVYKVQNLQWTA DFGSDVTLTW  
MRPKKMP SASCVNYYRVVVGESIWKTLETHSNKNTNTVLKVLKPD TTYQVKVQVQCLSKAHNTNDFVTLTRPEGL  
PDAPRNLQSLPREAEGVIGVHWAPP IHTHGLIREYIVEYSRSGSKMMAASQRAASNFT EIKNLLVNTLYTVRVAA  
VTSRGIGNWSDSKSITTIKGVIPPPDIHIDSYGENYLSFTLTMSEDIKNGVYVNLFWAFDTHKQERRTLNFRG  
SILSHKVGNLTAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTA VECTWTGPRNVVYGI FYA  
TSFLDLRYRNP KSLTSLHNKTIIVISKDEQYLF LVRVVVPYQGPSSDYVVVKMIPDSRLPPRHLHVHTGKTSVVI  
KWESPYDSPDQDLLYAI AVKDLIRKTRDSYKVKSRNSTVEYTLNKLKLEPGG

## FIGURE 326A

CACGTTGGGTGACATAATGGGGTTTTTTAAATTATAGATTACACTGCATTATTATCATACCCCTGTCTCTCAT  
 CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTTCGCGTTTAC  
 AAGTGTTCGAGCGCTTGCTTTCGAGCAAGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT  
 TTGATTGGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGCAGGAAGTCACTTAACGTGTTTGGGAGCTGGAAAACCGA  
 AGCTGAAGTTCTCTTTTGGCATAGGAACAGGCGCAACTGACTAGGAAAGATGTGTCCAAAGCTCCGCAAGCTGG  
 AAGCTGAGCCAGGAGGCCCGGACCGGCCACGGGACCGCGAGGCACTCCGAAAGTGTGCGGCTGCCCTTCCCTGTC  
 CTCCAGCTGTTTACCCTTTTAAATGTCAAGTGTTCGAGGCTGTAGGGCTAGGACGAGGACGAAACCGAAGCTG  
 GGATTGGCCGACGCGCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCAGTGGCAGGGGGAGAAAGTAAA  
 CAGAGTTGAATCACCTCCCCACTGGCCAAATGGAGGGGGTTGGTTTGTGACGTGATGGGATTCTCGGAAATTTG  
 TTACTGACGAAGAGAAATGCCGGAAGCTGCGGACCGGCCGAGCAGGGGTTCAGAGCCCTCAGTGGACTCGGGAA  
 AAAGTGTCTCTTAGACCTTGGCGCTCGCGGGGGCCCTCGCCACCCGCGTGGGGTGATCGGGTGAATGTCCTGGGG  
 CTTTGGCTCGACGGCGAGGCGGGCGGAGGGCGTGCACCTCTCTTGCAGTTTCTCTCCAGCGCTTCGGGGCGT  
 TTCAGTCGAATAAACTTGCACCGCCACGTGTGGCATCTTCCAAAGGAGGCGGCTCAGAGGGCGCGCGCGCCC  
 GTCGGGGATCGCGGCCGCGCGGGGACGGGGCGCGGCTAGAGGCGCGCGCGCGCGCGGAGCCCGGGCGCTGGA  
 TGCTGCGTTCGGGAGGCGCTCCGGTTACGTAAGATGAGGGGCTGAGGTGCGCTCGCGCTCTCGAGTTCGAA  
 GCGCCCGCGCCCCCGCCCCCTTGGCCGCGCGCGCGTGCAGGGCGGGGCTGCTGCTCGGAGCCAGGGAGGGC  
 GAGCCGAACCTCCCGACGCCACCGCAAGTTTGTCCGCGCGCTGGGTGCGCTCGCCCGCACCTGCTCCGCGG  
 CGCTACATGGACTCTGTGGCTGCCAGTGTCTGGTTTCCATTTCGAACCGCGTGGCGTGGCGGAGATGGGGT  
 CGCTCCGAGCGCGGAGCGGCTGCGACTACCTGAGCGCGAGGTACCAAGGAGCACGGTGACCCGGGGGACACCTG  
 GAAGGATTACTGCACACTGTGTACCATCGCCAAAGAGCTTGTGGACCTGAACAGTACCAGCCATCCAGACCCC  
 CTCCTGTGTCAGCGACAGTCTGGAAGATCCAGATGAGGATATGGGATCCGACAGCGACGTGACCCCAAGTCTGG  
 GTCGAGTCTTCCACAGCCCGGAGGAGAGACAGGATCTTGGCAGCGCGCCGACCGCGCTCTCCCTCTCCATCC  
 TGGAGTGGCTGCGAAGGGGAAACACGCTCCGAAAGAGGCACAAAGTGCCTTACAGTGGCTGTGGGAAAGTCTA  
 TGGAAATCTCCCTCATCTCAAAGCCATTACAGAGTGCATACAGGTGAACCGGCTTCCCTCGACCTGGCCAGA  
 CTGCTTAAAGAGTTCTCCGCTCAGACGAGCTGACCGCCACTACCGGACCCACTGGGGGAAAGAGATTCG  
 CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACTCAAAAGCACGCGCGGCGCACACCGAGTTCCA  
 CCCCAGCATGATCAAGCGATCGAAAAGGCGCTGGCCAAACGCTTTGTGAGGTGCTGCGCGTGGAAAGCCAGGGAGG  
 GATGGACCCCGAAGGAGCAAAAGTACTCCACGAAACAGACGCGTGAAGACTTACGCTCCGAGCCAGAAGAGCCACTTG  
 ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTCTGATTTTTCTCTCCCTGAGTTTTTAAAGACCAT  
 GTAGCTAAGATCAAAGTCAACAACTCGGTCCCTTGAAGAGGCACTCTCTGAACCCGCTCTGACTGTTGG  
 AGGGAAGGCAAACTGCTTTGGGTTTTTGGTTTTTGTGTTTTTCTCTCTTTTATTTTTTGGCGGGGA  
 TGATGGGAGTGGGTGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGGTTTTAAAGATTCAACACTGGTGTACAT  
 ATGTCCGCTGGGTGAGTTGACCTGTGGCTTCGCACAGTGATTCTAGGCCCTTATGCTTGTCTCTCAGAAAT  
 GTTTCCTTACCTTTTAATGTAATGACGAGTGTGCTTCAAGTTGTTTAGCAAAACCACTCTCTTGAATCAGTTAA  
 CTTTTGAGATTAAAAAAGCAAGCCATAGCACAGCTGCTTTATGCAAGCAAGAGCACATCTTCCAGGATGA  
 TCTGTCTATTAAGACTTGAAAAACAAAAACAGTTACTTATAGTCAATGGGTAGCAGCACTGTAATTTATACTA  
 ATCAAGACAACCTTTGAAAGTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGATGTGATCTTTT  
 AACATAAGCTGCATTTTATTTCTAATGCAGAGGATGAATAAGTTAAATCAATGCTTTTGAGGATAGAAGCAGAT  
 GTTCTGTTTGGCACCAGGTATATATCTGCTTATTTACAATATACAGTTTCCCTAAGAATATCTGCCGACAGAT  
 GTGAGGGCAGAATATACACAACAGACTCTGAAGGAGAAGGAGGTAGTGTTTTGCAGAAAGAAAAAGAACCC  
 AACAGAAATTTAACTCTAATACTTTTCCAAATTTTCCATGCTTTAGTTAACATCATTATTGTATCCTAATGC  
 CACTAGGGGAGAGAGCTTTTGAATCTGTTGGGTTTTATTTGAATGTGTGCATAACGATATGAGATCTGGAAACA  
 CCTATTTTGTGGGAAAAAGGTTTGTGGTCTCCTTCTCTTCTCAAACTCCCACTCTCAGGTGCAAGAG  
 TTAGTAGAAGGAAAGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAGGGAAAAAT  
 AACCAATGATTTAGAGAGAGACTCTGCAAAATCGTCCCTTGGGAGAGATGCGAGCAACATGGAATACATCAAGAT  
 GAAATACATCACTGATCTTTTATCTTTACATCAATAGCTCACCACCTAATACTCTGTATCTAGGTGCTCTAATGGC  
 TGAACCACTACATCCATCTATGCCATTTACCTGAAACCTTAACTGTGGCTTTATGAGGCCAGAAAGTGAAC  
 GAGTTTGTAGTTAAGACCTCAATAGAGGGAGTCAGCAGTGATCATGGGGAAATGTTTACATTTTTTTTTCT

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**FIGURE 326B**

TCAGAAGTAACGCTTTCCTGATGATTTTATCTGATATTTAAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG  
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACCTCGTTTCTGATTGAGAATCAGTG  
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACCTCCAATACAACAGCCATCACTAGCACAGTGT  
TTTGTTTAACCAACGTAGTGTATTAGTAGTTCTATAAAGAGAACTGCTTTTAACATTAGGGACTGGGAGCAGTC  
CATGGGATAAAAAGGAAAGTGTTCCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTCTACCTCTGTT  
TCAGATTTTGAACACTTATTTTAAACCAAAATTTAATTTCTGTGICCAAAATAAGTTTAAAGGACATCTGTT  
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG  
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTCCTAGCACTTCTAAGTTGTAAGGATCATCTTTCCCTCACAG  
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC  
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAATGCACATTTACTTCCCAAAAAAGT  
TGTTACTTGCTTTTCAAGTGTGACAACTCACATTGATATCTCTTATATGTTATAGTAATGTAACGTATAAA  
CTCAAGCCTTTTATCTTTGTGATTAAATCCTGTTTTAAATGTACAAAAACAGGAACCGCATTCTAATTAGA  
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTCATTGAACACTAAACTATGAAACAATTACTTT  
TTATATTAAAAAGACCATGGATTTAACTTATGAAATCCAAATGCAGGATAGTAATTTTGTCTTACTTTTTAAC  
CAAACGAATTTTGAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACGTAAAGTAG  
TTGTCATATTCTGGAAAAATTAATAGTTTATAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAAGAGCCC  
TTCACCATTGTGGAATGATGCCTTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

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**FIGURE 327**

MSAAAYMDFVAAQCLVSI SNRAAVPEHGVA PDAERLR LPEREVTKEHGDPGDTWKDYCTLVTIAKSLDLN KYRP  
IQTPSVCSDSLESFDEDMGSDSDVTTESGSSPSHSPEERQD PGSA PSLSL LHPGVAAKGKHASEKRHKCPYSGC  
GKVYGKSSHLKAHYRVHTGERPFPCTWPDCLKKFSRSD ELTRHYRTHTGEKQFRCP LCEKRFMRSDHLTKHARRH  
TEFHPSMIKRSKKALANAL

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FIGURE 328A

CACGTTGGGTGACATAATGGGGTTTTTTTAATTATAGATTACACTGCATTATTATCATCACCCTGTCTCTCAT  
CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC  
AAGTGTGCAGCGCTTGGTTTTCGGAACGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCACTTACTT  
TTGATTGGAAAGCGTGGTGTCTGGGACTGTAGCGTTTGCAGGAAGTCATTACTGTTTGGGAGCTGGAAACCCGA  
AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAGATGTGTCCAAAGCTCCGCAAGCTGG  
AAGCTGAGCCAGGAGGCGCCGACCGGCCAGGGACCGCGAGGCACTCCGAAAGTGTGGCGTGCCTCTCCCTGTC  
CTCCAGCTGTTTACCCTTTTAAATGTCTAGTGTTCGAGGCTGTAGGGGTAGCAAGGACGCGAAACGGAACTGC  
GGATTGGCCGCACGCTCAGTTCTAGACGCACCTCTCCACCGAAGCGTTTCTGACTGGCAGGGGGAGAAAGTAAA  
CAGAGTTGAATCACCTCCCCACTTGGCCAATTGGAGGGGGTTTGGTTTGTGACGTGATGGGATTCTCGGAAATTG  
TTACTGAGCAAGAGAAATGCCGGAACCTGCGGACCGCGGAGCAGGGGTTTCAGAACCGCTCAGTGGACTCGGGAA  
AAAGTGTCTCTTAGACCTTGGCGCTTCGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGTGAATGTCTCTGGG  
CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGCACCTCTCTTGACGTTTCTCTCCACGCGCTCGGGGCGCTT  
TTCAGTCGAATAAACTTTCGACCCGCCACTGTGGCATCTTTCCAAAGGAGCGCGCTCAGAGGGCCCGCGGCC  
GTCCGCGGATCGCGGCCGCGCGGGCAGGGCGCGCGGTAGAGCGCGCGCGCGCGGAGCCCGGGCGCTGGGA  
TGCTGCGTGCAGGCGCTCGCGGTACGTAAAGATGAGGGGCTGAGGTGCGCTCGCGCTCTCGAGTGTGGAA  
GCGCCCGCGCCCGCCCTTGGCCGCGCGCGTGCAGGGCGGGGCTGCTGCTCCGAGGCCAGGAGGGC  
GAGCGCAACTCCGAGGCCACCGCAAGTTTGTCCGCGCGCTGGGTGCGCGTCCGCCGACCACTGCTCCGCGG  
CGCTACATGGAAGCTTCTGGCTGCCAGTGTCTGGTTTCCATTTCGAACCGCGCTCGGTCGCGGAGCATGGGT  
CGCTCCGAGCGCGAGCGGCTGCGACTACCTGAGCGGAGGTGACCAAGAGCACGGTGACCCGGGGACACCTG  
GAAGGATTACTGCACACTGTGCACCATGCCAAGAGCTTGTGGACCTGAACAAGTACCGACCATCCAGACCC  
CTCCGTGTGCAGCGACAGTCTGGAAGGTCCAGATGAGGATAGGGATCCGACAGCGACGTGACCCAGCAATCTGG  
GTCAGATCTTCCACAGCCCGAGGAGAGAGACAGGATCCTGGCAGCGCGCCAGCGCTCTCCCTCTCATCTC  
TGGAGTGGTGTGGAAGGGAAACACGCCCTCCGAAAAGAGGCACAAGTGCCCTACAGTGGCTGTGGAAAGCTA  
TGGAAATCTGCCATCTCAAGACCCATTACAGAGTCATACAGGTGAACGGCTTCCCTCGCGCTGGGACG  
CTGCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCGCCACTACCGGACCCACATGGGGAAGAGCAATTCG  
CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACACCTCACAAAGCAGCGCGCGGCACACCGATTCCA  
CCCCAGCATGATCAAGCGATGCAAAAAGGCGCTGGCCAACGCTTTGAGGCTGTGCTCCGTTGGAAGCCAGGAGG  
GATGGACCCGAAAGGACAAAGTACTCCAGGAACAGACGCGTGAAGAACTGACGCCAGAGAGGCAACCTTG  
ACGGCAGGAGGACTGCTGCTCTTGTGCTCAATTTCTGATTTTCTCTCCCTGACCTTTTAAAAAGCACTT  
GTAGCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCACTCTCTGAACCCGCTCTGACTGTGTG  
AGGGAAGGCAAAATGCTTTTGGGTTTTTGGTTTTTGGTTTTTGTCTCTTTTATTTTTCGCGGGGA  
TGTATGAGGAGTGGGTGGGGGGAGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACAGTGGTGATAT  
ATGTCGCTGGGTGAGTTGACTGTGGCTCGCACAGTGATTCTAGGCCCTTTATGCTTGTGTCTCTCAGAAAT  
GTTTTCTTACCTTTTAAATGTAATGACGAGTGTGCTTCAGTTTGTGTAGCAAAACCACTCTCTTGAATCACGTAA  
CTTTTGAGATTAAACAAAACCCGACATAGCACAGCTGCTTTATGCAAGCAAGACACATCTACTCCAGCATGA  
TCTGTCACTAAAGACTTGAAACAAAACACAGTTACTTATAGTCAATGGGTAAAGCAGAGTGTGAATTTATACTA  
ATCAAGACAACCTTTGAAGGTTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGAGTTGTACTTTTG  
AACATAAGCTGACGCTTTTATTTCTTAATGCAGAGGATGAATAAGTTAAATACATGCTTTTGAGGATAGAAAGCAT  
GTTCTGTTTGGCACCAGCTTATAATCTGCTTATTTTACAATATACAGCTTTCCCTAAGAAATCATGCGCAGAGAT  
GTGAGGGCAGAATATACAAACAGATGCTGAAGGAGAAGGAGGTAGTGTGTTTCAAGAGAAAAGAAAAGAAC  
AACAGAAATTTTAACTCTATTAACTTTTCCAAATTTTCTATGCTTTTAGTTAAACATCATTATTGTATCTTAATGC  
CATAGGAGGAGAGGCTTTTGAAGCTGTTGGGTTTTTATTTGAATGTGTGCATAACAGTAAATGAGATCTGGAAACA  
CCTATTTTGTGGGAAAGAGGTTTGTGTGCTCCTCTGTTTCTCAAAACCTCCCACTCTCAGGTGCAAGAG  
TTATGTAGAAGGAAAGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGAAAAAT  
ACACAATGATTTCAGAGGAGACTCTGCAAAATCGTCCCTGTGGAGAATGCAGGCAACATGGAATACTACGAAT  
GAAATCACTACTGTATCTTTTACATCAATAGCTCCCACTAATATATCTTTGTATCTAGGTGTCTATAATGGC  
TGAACCACTACATCCATCTATGCCATTTACCTGAAACCTTAACTGTGGCTTTTATGAGGCCAGAAAGTGAAC  
GAGTTTGTAGTTAAGACCTCAATAGAGGGAGTCAGCAGTGATCATGGGGAAATGTTACATTTTTTTTTTCT

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**FIGURE 328B**

TCAGAAGTAACGCTTCTCTGATGATTTTATCTGATATTTAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG  
CGCTCTGAAATGIGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACTCGTTTCTGATTGAGAATCAGTG  
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACCTCCAATACAACAGCCATCACTAGCACAGTGT  
TTTGTTTAAACCAACGTAGTGTTATTAGTAGTTCTATAAAGAGAACTGCTTTTAAACATTAGGGACTGGGAGCAGTC  
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTGAGGAAAAATAAAGAACACTTCTACCTCTGTT  
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTT  
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG  
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGAAAAAGTCATCTTCCCTCACAG  
AAAGAAACGAAAGAAAGCAAGCAAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC  
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTGTGTTTTAAAAAATGCACATTTACTTCCAAAAAAGT  
TGTTACTTGCTTTTCAAGTGTGACAACTCACATTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA  
CTCAAGCCTTTTTATTCTTTTGATTAAATCCTGTTTTAAATGTGACAAAACAGGAACCGCAATCTAATTAGA  
TTTACTATATCAAGATATGGTTCAATAGGACTACTAGAGTTTCATTGAACACTAAAATATGAAACAATTACTTT  
TTATATTAAAAAGACCATGGATTTAACTTATGAAAAATCCAAATGCAGGATAGTAATTTTGTGTACTTTTTAAC  
CAAACGAATTTTTGAAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACTGTAAGTAG  
TTGTCATATTCTGGAATAATTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTTGGTTAGGGAAGAAGAAAGCCC  
TTCACCAATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCT



**FIGURE 329**

MSAAAYMDFVAAQCCLVSI SNRAAVPEHGVA PDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP  
IQTPSVCSDSLESPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPSLSLHPGVAAKGKHASEKRHKCPYSGC  
GKVYKSSHLKAHYRVHTGERPFPCTWPDCLKKFSRSDDELTRHYRTHTGEKQFRCPLCEKRFMRSDHLTKHARRH  
TEFHPSMIKRKKALANAL

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**FIGURE 330**

CACCGCGCAAGCGCATCTGGCCTTTCTTCAGTCCCCACGTGCGATCCTTCCCGGCACTTTTTCGAGAAAAATG  
CCCAAAATCAAGGCGGCCGTTGGGGTGGGGGGTCAGGAAAAACATGCGCCCCCTGGCCGATCAGATCTGGCTGGG  
AATGCGGTGCGGGCGGGGGTCCGGGAGAAGCGGCGGGGTGCGGGGACAGGAGAAGCGGAGGAAGAGTATGTGGGG  
CCCCGGCTGAGCCGACGGATTTTGACGCAAGCACGGCAGCAACAGGAGGAACTCGAGCCGAGCATGGGACTGGG  
GACAAGCCCCGGGCGCCGCGGAACGCACACCGGCTGGGTCCAAGAATGCCTCAGGATGGATCAGATGACGAG  
GACGAGGAGTGGCCACCTTGAGAAAGGCTGCCACAATGACAGCAGCGGGCCATCATGACAGGTTGGTTGTGGAC  
CCTGAGGATGAGCGTGCCATAGAGATGTTCTGAACAAGAACCCTCCTGCCAGGCGCACCTGGCTGACATCATC  
ATGGAGAAGCTGACTGAGAAGCAGACAGAGGTTGAGACAGTCATGTGACAGGTTGCGGGCTTCCCTATGCCCCAG  
CTGGACCCCCGGGTCTTAGAAGTGACAGGGGGGTCCGGGAGGTATTATCTAAGTACCGCAGTGGAAAACTGCC  
AAGGCATTAAAGATCATCCCTGCACTCTCCAACCTGGGAGCAAATCCTCTACGTACAGAGCCGGAGGCCCTGGACT  
GCAGCTGCCATGTACCAGGCCACCAGGATTTTTGCCTCTAACCTGAAGGAACGCATGGCCGAGCGCTTCTACAAC  
CTTGCTCTGCTCCCTCGAGTACGAGATGACGTTGCTGAATACAAACGACTCAACTTCCATCTCTACATGGCTCTC  
AAGAAGGCCCTTTTCAAACCTGGAGCCTGGTTCAAAGGGATCCTGATTCCACTGTGCGAGTCTGGCACTTGTACC  
CTCCGGGAAGCCATCATTGTGGGTAGCATCATCACCAGTGCTCCATCCCTGTGTTGCACTCCAGTGCGCCCATG  
CTGAAAAATTGCTGAGATGGAATACAGCGGTGCCAACAGCATCTTCTGCGACTGCTGCTGGATAAGAAGTATGCA  
CTGCCCTTACCGGTGCTGGATGCCCTAGTCTTCCACTTCTTGGGGTTCGGGACAGAGAAGCGTGAACCTGCCGTG  
CTGTGGCACCAGTGCTCCTGACTTTGGTCCAGCGCTACAAGGCCGACTTGGCCACAGACCAGAAAGAGGCCCTC  
TTAGAACTGCTCGGCTGACGCCCATCCACAGCTATCGCCCCGAAATCAGGCGTGAGCTTCAGAGTGCAATCCCC  
CGCATGTGGAAGATGTTCCCATCACCCTGGAGTGAAGGAAAAACAGTCAGCTGTCTGGCCAAAGGGGTTTGGAG  
GACACCAAGACCCCCGTTGGTGACTGAAGATGACACTGAGCTTTAATGGCTGAAGACCCAGATCAGGCGCAGTGAC  
AGATCACAGGGACATCTGTGGCTCCAGTCCAGGACAGGAAGGACTGAGGGCTGGCTGGTTCCCTCTTCCATT  
TAGGCCCTTATCCCTGTTTAGTTCTGAGAGCCAACCTTGAGATACCATATGCTAGCATTCACAGTCCCCAGCTGGG  
GCTTGGTGTGAGTACTTTTCTATGGCTATTGTGTCAGGTCAGTGTGGATAAAGGCAAGACAGATATTTATGA  
AAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 331**

MNKNPPARRTLADIIMEKLTEKQTEVETVMSEVSGFMPQLDPRVLEVYRGVREVLISKYRSGKLPKAFKIIPALS  
NWEQILYVTEPEAWTAAAMYQATRIFASNLKERMAQRFYNLVLLPRVRDDVAEYKRLNFHLYMALKKALFKPGAW  
FKGILIPLCESGTCTLREAIIVGSIITKCSIPVLHSSAAMLKIAEMEYSGANSIFLRLLLDKKYALPYRVLDALV  
FHFLGFRTEKRELPVLWHQCLLTIVQRYKADLATDQKEALLELLRLQPHPQLSPEIRRELQSAVPRDVEDVPITV  
E

GTTGCCCCCGGTACTTTCTCTGGGAAATATGGCCGACGCTGGAGAAACAGGGTACGATAACCGGGAGATAGT  
 TGATAAGTACATCCATTAAAGTGTCTCGACAGGCGCTACGATGGGATCGGGAGATGTGGCCGCCGCCGCC  
 GGGGCGGCCGCCCGCGGGGACTTCTCTCGAGGCCGGGACACGCCCTACACGGCGATCCCGGGAGC  
 GGTGCCAGGACCTCGCCGCTCGAGACCCCGCTGCCCGCGCGCGCGGGCGCTGCGTCAAGCCCGGTGCC  
 ACCTGTGCTGCACCTGACCTCCCGCAGGCCGCGGACGACTTCTCCCGCGTCCCGCGGACTTCGCCCGAGT  
 CTCGAGCGAGCTCACTGACGCCCTTCCCGCGGGGAGCGCTTTGCCACGGTGTGGAAGAGCTTCTCAGGGA  
 CGGGGTGAACGTGGGAGGAGTATTGGCGCTTCTTGAGTTGCGTGGGCTATGTTGTGGAAGCGCTCAACCGGA  
 GATGTCCGCCCTGTGGTGAACATCGCCCTGTGGATGACTGAGTCAACCGGCACCTGCACATCGACATCCA  
 GGATAACGGGAGCTGGGATGCTTTGTGGAAGTGTACGGCCCCAGCATGCGCGCTTGTTTGATTCTCTGCG  
 TCTCTGTAAGACTCTGCTCAGTTTGGCCCTGTGGGAGCTGTGATCACTCGCTGGGCTCATCTGGGCCACAAGT  
 AAGTCAACATGCTTCCCCAACAAATATGCAAAGGTTCACTAAAGACGAGAAATATATGCAATCTGTGAGTA  
 TGTTCATGAACAAAAGCTGCAGGCTGTTTAAGAAAAATAACACACATATAAACATCACACACAGACAGACA  
 CACACACACACAAATATAAGCTCTCAGGAAAGCTCGAATCAGCTATTATCTGCAAAAGGAAATATCAATT  
 TATTTTTCATTACATATAAGAAAAAAGATTATTTATTATAAGACAGTCCCATCAAACCTCTGCTTTTGAATC  
 CGACCACTAATTGCCAAGCACCCTTCTGTGTGCTCGACCTGGAATGTTCTGTGCTGTAAACATAGATTGCTTT  
 CCATGTGTTGTGGCCGATCACCATTGAAGAGCAGCGGATGGAAAGGACCTGATCATTTGGGGAAGCTGGCTT  
 TCTGCTGCTGGAGGCTGGGGAGAGGTGTTCACTTCGATTTCTTGTCCCTGGGGGCTGTGATATTAAACAG  
 AGGGAGGGTCTGTGTGGGGGAAGTCCATGCTTCCCTGGCTGAAGAAGAGACTCTTTGCATATGACTCACTAAG  
 TGTCATACCTGTGGGAGGAAAGTGTGGAACTTCAGATGGACCTGAGATTTCCACGCCGAAGG  
 ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAGATTTTTTAAGTACCAATTGTGCCGAGAAAGCATT  
 TTAGCAATTTATACAATATCACTCAGTACCTTAAGCCCTGATTTGTATATTCATATATTGTGACACGCCCCC  
 CCAACTCCCAATGCTGGCTCTGTCTGAGTAAGAACAAAGATCCCTGTGAATCTGAGGAAGTGAATCTTGGTGA  
 TCTCCGATCAGGAAGCGTAGAGTTACCCAGGACATCAGGCCGCCACAAGTGCTGCTTTTAGGAGACCGAAGT  
 CGCAGAACCTGCTGTGTCCAGTCTGGAGGCTGTGCTGGAATGAGCGGGGCCCTCAGCTGCCCTCTCCAG  
 GATGATCAACAGGCGAGTGTGGTCTCCGAATGTCGGAAGCTGATGAGCTCAGAAATCCCACTGTCAGAAAGA  
 GCAGTAGAGGGTGTGGCTGGGCTGTCACTTGGGGCCCTCCAGGTAGGCCCGTTTTCACGTGTGAGCATGGGAG  
 CCACAGCCCTTCTTAAGACATGTACTACTGTAGAGGAGGAACACAGGCCCTGGGCCCTTCTCATAGGAAGC  
 ATGGTAGAGGCTGGGAACGTGAGGAGGCAATGCGCACGGGCCATTTTGGCTGTAGACATGGCAGCTTGGCTG  
 TGTGGCCTTGGCCCACTGTGAGTTTAAAGCAAGCCTTAAATGACTTTGGAAGAGGTCACAAACTCTAAAGAA  
 GACATGAAGTGAGGTGTACATGATTAAATGTAGCCCTGTCTATGGAATTACATGTA AAAACATTCTGTGCTAGT  
 AGTTTGGTTTATTTTAGAAACCTCAAAAAAAGAGTCCAGGTGTGGAATATGGGGGTATCTGTCATCTTGG  
 GGCATTA AAAAAAATCAATGGTGGGGAATATAAAGAGTAACAAAAGAGTGACATCTACGACAAATAAAT  
 AGAAATATTTTTTCTCCAGTTTGAATACAGCTTGAACATGTAGGAATAAATCTGTGGCATTTGTCAT  
 ATATACCATTTATCTGTTATTAACCTTGGGAATGTACTTGTGTAAGTTTAATGCTGGTGTGATATTTCGAAAGC  
 TGCTTTAAAAAATACATGCACTGCAGCGTTTTTGTGTTTATTTAATGTATTTAGTATGGCCCTATACATTTTG  
 TGAGCAAAAGGTGATCGTTTTCTGTGTAGATTTTCTGTTGATCTTCAAAAGCATCTGAGAAGGTGAGATA  
 AGCCCTGAGTCTCAGTACTCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTTCAACCAAGTCAT  
 GTGCAATTCACCGTCAACAGAAATGTTTATTGTGACAGTATATCTGTGCTGCCCTTGACCTTGTCTTTGGAAG  
 TTTCTCTGCTCGCTGGGCAATCCGCAATTAATCATGTGATTCAGGATACATCATGTTTGGTATAAACCTATGA  
 GATTCATTGATTA AAAATCCAGATGGCAATGACCACGAGATTCAAATCATGGTGGTTGACCTTTAGAGAGT  
 TGCTTTACGTGGCTGTTTCAACACAGACCGCCAGAGCGCTCTGCCCTCTTCTGGCGGGGGCTTTCTCATGG  
 CTGCTCTCAGGGTCTTCTGAAATGTGAGTGTGTTCTACGTCACCAAGAAAGCAGGAACCTGTGGTATGAG  
 CCAGACCTCCCGCGCGGCCCTCAGGGAACAGATGATCAGACCTTGAATGATCTCAATTTTAAAGCAAAATATT  
 ATTTTATGAAGGTTTACATTTGTCCAAAGTGAGAAATGGAATATCCAATCTGTGCTGCTATCTGCCAAAATC  
 ATTTTAATGAGGTGACGTTTGCAGTATGCTCCAGCTGTTAAATGATCGCTTCAAGCTGCTTTAGAAGTAACATGAAGA  
 ACGTGGACGCTTTTAAATATAAGCCTGTTTGTCTTGTGTTGTTGTTCAACCGGGATTCAGAGATATTGAAAA  
 ATGTATATATATAAAGGTCACGGGGGCTAATTTGCTGGCTGGCTGCTTTTGTGTGGGTTTGTGTACTGGT  
 TTTAAATACAGTAAGTGTGCCAGCTCTTGGCCGCCAGCACTGACAGTATTGTGGCTGCATGTGCTCTAAGAG

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**FIGURE 332B**

AGTTGATGTTGCATTTTCCCTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAGCCTCAACTAGTCA  
TTTTTTTCTCCTCTTCTTTTTTTTTCATTATATCTAATTATTTTGCAGTTGGGCAACAGAGAACCCTCCCTATTTT  
GTATTGAAGAGGGATTACATCTGCATCTTAACTGCTCTTTATGAATGAAAAACAGTCTCTGTATGTACTCCT  
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACTTTCCAAATTTGGGCAAGAGGCTCTAAAAAAG  
CCCCAAAAGGAGAAGAACATCTGAGAACCTCTCTCGGCCCTCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA  
GGCCAGAAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTTGGGAGGGGAGAAAACTCTGG  
CAGGCTTAAGATTTGGAATAAAGTCACAGAATCAAGGAAGCACCCTCAATTTAGTTCAAACAAGACGCCAACATTCT  
TCTCCACAGCTCACTTACCTCTCTGTGTTAGATGTGGCCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA  
TGCTTATCATCTAAAGATGTAGCTCTGGCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA  
ATAATCAAGATTAAATGTAATAATCAGGGCAATCCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT  
GAACAGAAATGCAAAATAGTCTCTATTGTAAATGAACTTATCCTAAAACAAATAGTTTATAAATGTGAACTTAAA  
CTCTAATTAATTCCAACTGTACTTTTAAAGGCAGTGGCTGTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT  
ACACCTACTCTATCAGAGAAAAACAGGAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA  
AATCTATTCTGATCTTATTCTGTGGTGTCTTTGCGAGCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC  
AATTTACATTGTCAAGCTTATGAAGTTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTACAGGATTT  
TTTTTTTAAATATTATGAGGACAAAGGACATTTGTTGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAAC  
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTCAGAAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG  
GTCGATGTAGTGCCTCTGCGAAGAACCTTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG  
ATTTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCATGGTATAAATTTCAAGCTGGATAT  
GTCATAATGGGTATTTAAACAATAAATGTGCAGTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG  
GGACATCTGTTTTCTAAATGTTTATTATGTACAATACAGAAAAAATTTTATAAAATTAAGCAATGTGAACTGAA  
TTGGAGAGTGATAATACAAGTCCTTTAGTCTTACCAGTGAATCATTCTGTTCATGTCTTTGGACAACCATGAC  
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAGAAAAATCAGATGGAGCATGAATGGTACTGTACCGGT  
TCATCTGGACTGCCCCAGAAAAATACTTCAAGCAAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT  
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAGGCTCGCTCAATCAAGAAAAATCTGAGACTATTATAAA  
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAAATCTGCCGTGGGCCCTCCAGA  
TAGCTCATTTCATTAAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTGGGGA  
AGCTTTCTTTTGGTGGTTTGTGTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTGTTAGTTACT  
GGGGTTATTTTTGTTTTTAAATAAAAAATAAGTGTACAATAAGTGTTTTTGTATTGAAGCTTTTGGTTATCAAGATT  
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAAGAGTGGCTGATATTCTGCAACACTGTA  
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA  
ATGCACTTTGTTTGTGTTGTTGGAAAAAGTCACATTGCCATTAACTTTCCCTGTCTGTCTAGTTAATATTGTA  
AAGAAAAATAAAGTACAGTGTGAGATACTG

**FIGURE 333**

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDA GDVGAAPPGAAPAGFISSQPGHTHPAASRDPVARTSPLQTP  
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF  
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLHTWIQDNGGWVGASGDVSLG

GAGTGACTCCACCGCCCGGAGCAGCGGTGCAGGACGCGCTCTCCGCGCCCGCGGGTGACTTCTGCCTGCGCTCC  
TTCTCTGAACGCTCACTTCCGAGGAGACGCCGACGATGAAGACACCCGTGGAAGGTTCTTCTGGGACTGCTGGGTG  
CTGCTCGCGTGTGTCACCATCATCACCGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACA  
GTGCGAAAACCTTACACTCTAAGTATTACTTAAAAAATACTTATAGACTGAAGTTATACCTCCCTTAAGATGGATT  
CAGATCATGAATATCTCTACAAAACAAGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTT  
TCTTGGAGAACAGTACATTGTATGAGTTTGGACATTCTATCAATGATTATCAATATCTCCTGATGGGCAGTTTA  
TTCTCTTAGAATACAACTACGTGAAGCAATGGAGGCATTCTCACAGCTCTCATATGACATTTATGATTAAATTA  
AAAGGCAGCTGATTACAGAAGAGAGGATTCCAAACAACACACAGTGGGTCCATGGTCACCAGTGGGTCTATAAAT  
TGGCATATGTTTGGAAACATGACATTTATGTTAAAAATGAACCAAAATTTACCAAGTTACAGAATCACATGGACGG  
GGAAAGGAAGATATAATATATATGAATAACTGACTGGGTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTC  
TGTGGTGGTCTCCAAACGGCACITTTTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATATC  
CCTTCTACTCTGATGAGTCACTGCAGTACCCAAAGACTGTACGGGTTCATATCCAAAGGCAGGAGCTGTGAATC  
CAACTGTAAAGTCTTTTGTGTAATACAGACTCTCTCAGCTCAGTACCAATGCAACTTCCATACAAATCACTG  
CTCCTGCTTCTATGTTGATAGGGGACTCACTACTTGTGTGATGTGACATGGGCAACCAAGAAAGAAATTTCTTTC  
AGTGGCTCAGGAGGATTCAGAACTATTCCGTCTATGGATAATTGTGACTATGATCAACTCAGTGGGAAGATGGAAT  
GCTTAGTGGCACGGCAACCATTTGAAATGAGTACTACTGGCTGGGTTGGAAGATTAGGCCCTTCAGAACCTCATT  
TTACCTTGTATGGTAATAGTCTTCTACAAGATCATCAGCAATGAAGAGGTTACAGACACATTTTGCTATTTCCAAA  
TAGATAAAAAAGACTGCACATTTATTACAAAAGGCACCTGGGAAGTCTATCGGGATAGAAGCTCTAACCAAGTATT  
ATCTATACTACATTAGTAATGAATATAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAATTTAGTGACT  
ATACAAAAGTGACATGCCTCAGTTGTGAGCTGAATCCGGAAGAGGTGTGAGTACTATTCTGTGTCATTTCAGTAAAG  
AGGCGAAGTATTATCAGCTGAGATGTTCCGGTCTGGTCTGCCCCCTATACTCTACACAGCAGCGGTGAATGATA  
AAGGGCTGAGAGTCTCGGAAGACAATTCAGCTTTGGATAAAATGCTGCAGAAATGTCCAGATGCCCTCCAAAAAAC  
TGGACTTCATTTATTTGAATGAACAAAAATTTTGGTATCAGATGATCTTGCTCCTCATTGATATAATCCAAGA  
AATATCCTCTACTATTAGATGTGATGCAGGCCCATGTAGTCAAAAAGCAGACACTGCTTCAGACTGAACTGGG  
CCACTTACCTTGCAAGCACAGAAAAACATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATA  
AGATCATGCATGCAATCAACAGAAGACTGGGAACATTGGAAGTTGAAGATCAAAATGAAGCAGCCAGACAAATTTT  
CAAAAATGGGATTGTGGACAACAACCAAGTTGCAATTTGGGGCTGGTCTATATGGAGGGTACGTAACTCAATGG  
TCCTGGGATCGGGAAGTGGCGGTGTTCAAGTGTGGAATAGCCGTGGCGCTGTATCCCGGTGGGAGTACTACTAGT  
CAGTGTACACAGAACGTTACATGGGCTCTCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCACAGCTCA  
TGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTACCTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTC  
AGCAGTCAGCTCAGATCTCCAAAGCCCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGGTATAGTATGAGAG  
ACCATGGAATAGCTAGCAGCAGACACCAACATATATATACCACATGAGGCACTTCATAAAAACAAATGTTTCT  
CTTTACCTTAGCACCTCAAAATACCATGCCATTTAAAGCTTATTAAAACTCATTTTTGTGTTTCAATTATCTCAAAA  
CTGCAGCTCAAGATGATGATGATCTTTAAAATACACACTCAAAATCAAGAAACTTAAGGTTACCTTTGTTCCCAA  
ATTTCTATACCTATCATCTTAAATAGGGACTTCTGTTCTCAACAGATTATTACCTTACAGAAAGTTGAAATATC  
CGGTGCGGTTTATGTGTTTAAATCATTTCGTCATCAGCTGCTGAAACAACAAATAGGAATGTGTTTATGGAGG  
CTTTGCAATAGATTCCTGAGCAGGATTTTAATCTTTTCTTAACCTGGACTGGTTCAAAATGTTGTTCTCTCTTTAA  
AGGATGGCAAGATGTGGCCAGTGTGCTACTAGGCGAGGACAGGATATAGGAGGATAGGGAGAGAAGATAGACA  
GGGCGATGGCTGGGAACCAAGTCCAAGCATACCAACACAGCAGGCTACTGTGAGCTCCCTCGGGAAGAGCGTG  
TTCAGAGCCAGACTGGCAGAGTTTTCTGAGAAAGACTATTCAACAGCTCTCAGGAATCAAAATGCAAGAGCACT  
GACTTCTAAGTAAAACACGAGGTTGAAAAGACTCCAAAGAAATGTAAGGGAATAGGAGGAGTGGCAAGCAGCGGCC  
CAGGTGCCAGTTATGGCTATAGGTGCTCAAAAAACACAGCAAGGGTGATGGGAAGCAATGTAAATGTGCTTTTA  
AAAAAAAATCTGATGTTCTCTAGTAAGAGGCAGCTTGAACCTGAGATGTGTAACACATGACGCTGCCCTGTTAA  
AAGATGAAAATATTGTTGATCAAGAACTTAACTTGAAGGAGTCTTGCATCAATTTTCTTATTTCATTCTTTG  
AGTGTCTTAATTAAGAAATATTTAACTTCTTGGACTCATTTAAAAAATGGAACATAAAATACAAATGTTATG  
TATTATTATCCATTCTACATACTATGGAATTTCTCCAGTCATTTAATAATGTGCTTCAATTTTTC

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**FIGURE 335**

MKTPWKVLLGLLGAAALVTIITVPVLLNKGTDADSRKTYTLTDYLNKNTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLNSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEEVFSAYSSALWWSPNGTFLAY  
AQFNDTEVPLIEYSFYSDESLOYPKTVRVVPYKAGAVNPTVKFFVVNTDSLSSVTNATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSYLYYISNEYKGMPPGGRNLYKIQLSDYTKVTCLSCELN  
PERCQYYSVFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMP SKKLDFIILNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDGRGSGYGDKIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMLVLSGSGVFKCGIAPVPSRWEYYDSVYTERYMGFLT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDQAMWYTDDEHGIASSTAHHQ  
IYTHMSHFIKQCFSLP



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FIGURE 336

CGCGCGTCTCCGCCGCCGCGTGACTTCTGCGCTGCGCTCCTTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG  
**ATGA**AGACACCGTGGGAAGATTCTTCTGGGAGTGTGGGTGCTGCTGCGCTTGTCACCATCATCCCGTGCCCGTG  
GTCTGCTGAACAAAGGCACAGATGAGTCTACAGTGCAGCTCGCAAACTTACACTCTTAAGTATTCTTAAAA  
AATAGTTATAGACTGAAGTTATATCTCTTAAAGTGGATTTCAGATCATGAATATCTCTACAAACAAGAAATAAT  
ATCTTGGTATTCAATGCTGAATATGGAACAGCTCAGTTTTCTTGGAGAACAGTACATTTGATGAGTTTGGACAT  
TCTATCAATGATTCTCAATATCTCTGATGGGCAGTTTATTCTCTTAGAATACAACTACGTGAAGCAATGGAGG  
CAITTCCTAGAGCTTTCATATGACATTTATGATTTAAATAAAAGGCAGCTGATTACAGAAGAGGATTCCAAAC  
AACACACAGTGGGTACATGGTCACCAGTGGGTCAATAATGGCATATGTTTGAACAATGACATTTATGTAAAA  
ATTGAACCAAAATTTACCAAGTTACAGAATCAGATGGACGGGGAAGAAGATATAATATAATGGAATAACTGAC  
TGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTGCTGCTGCCAACCGCACTTTTTAGCATAT  
GCCCAATTTAACGACACAGAAGTCCCACTTATTTGAATACTCCTTCTACTCTGATGAGTCACTGCAGTACCCAAAG  
ACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAAGTGAAGTTCTTTGTTGTAATACAGACTCT  
CTCAGCTCAGTCACCAATGCAACTTCCATACAACTCAGTCTGCTGCTCTATGTTGATAGGGGATCACTACTTG  
TGTGATGTGACATGGGCAACACAAAGAATTTCTTTGAGTGGCTCAGGAGGATTACAGAACTATTCGGTTCATG  
GATATTTGTGACTATGATGAATCCAGTGGAGATGGAACCTGCTTAGTGGCCAGGCAACATTTGAATGAGTACT  
ATGGCTGGGTTGGAAGATTTAGGCCCTTCAGAACCTCATTTTACCCTTGATGGTAAATAGCTTCTACAAGATCATC  
AGCAATGAAGAAGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTATTACAAAAGGC  
ACCTGGGAAGTCATCGGATAGAAGCTCTAACCACTGATTATCTACTACATTAGTAATGAATATAAAGGAATG  
CCAGGAGGAAGGAATCTTTATAAAATCCAACCTATTGACTATACAAAAGTGACATGCCCTCAGTTGTGAGCTGAAT  
CCGGAAGAGGTGTCAGTACTATTCTGTGTCATTAGTAAGAGGCGAAGTATTATCAGCTGAGATGTTCCGGTCT  
GGTCTGCCCTCTACTCTACACAGCAGCGTGAATGATAAAGGCTGAGAGTCCCTGGAAGCAACTTCAGCTTTG  
GATAAAATGCTGCAGAAATGTCAGATGCCCTCCAAAAACTGGACTTCATTATTTGAATGAAACAAAATTTTGG  
TATCAGATGATCTTGCCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGATGACAGGCCCA  
TGATGTCAAAAGCAGACACTGTCTTCAGACTGAACCTGGGCCACTTACCTTGCAAGCACAGAAAACATTATAGTA  
GCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCAATCAACAGAGACTGGGAACA  
TTTGAAGTTGAAGATCAAATGAAGCAGCCAGACAAATTTCAAAAATGGGATTTGTGACACAAACGAAATTGCA  
ATTTGGGGCTGGTCATATGGAGGGTACGTAACTCAATGGTCTGGGATCGGGAAGTGGCGTGTCAAGTGGGA  
ATAGCCGTGGCGCGCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATAGGCTCCCAACT  
CCAGAAGACAACTTGACATTACAGAAATTCACAGTCATGACGAGCTGAAATTTTGAACAGTTGAGTAC  
CTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTACGACGTCAGCTCAGATCTCCAAAGCCCTGGTCGAT  
TTGGAGTGGATTTCCAGGCAATGTGGTATCTGATGAAGACCATGGAATAGTCAGGACACAGACACCAACAT  
ATATATCCACACATGAGCCACTTCAAAAACAAATGTTCTCTTTACCT**TAG**CACTCAAAATCAATCGCCATTTA  
AAGCTTATTAATACTCATTGTTTTGTTTCTATCTCAAACCTGCAGTGTCAAGATGATGATCTTTAAAAATAC  
ACACTCAAAATCAAGAAACTTAAGGTTACCTTTGTTCCCAAATTTTACATACCTATCATCTTAAGTAGGGACCTCTGT  
CTTACACACAGATTATTACCTTACAGAAGTTTGAATATCCGGTCCGGTTTATGTTTAAAAATCATTTCTGCAT  
CAGCTGCTGAAACAACAAATAGGAATGTTTTATGAGGCTTTGCAATAGATTCCCTGAGCAGGATTTTAATCTT  
TTTCTAAGTGGCTGGTCAAATGTTGTTCTCTTTTAAAGGGATGGCAAGATGTTGGCAGTGTGCTACTAGG  
GCAGGGACAGGATACAGGGAATTAGGAGAGAGAAGATAGCAGGCAATGGCTGGGAAGCCCAAGTCCAAGCATACCAA  
CAGCAGCAGGCTACTGTGAGCTCCCTCGGAGAAGAGCTGTTCCACCAAGACTGGCAGATTTTCTGAGAAGA  
CTATTCAAACAGTCTCAGGAATCAAATATCGAAAGCACTGACTTCTAAGTAACCAACAGCAGTTGAAGACTCC  
AAAGAAATGTAAGGGAACCTGCCAGCAACGACGCCCCAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACA  
GCAAGGGTGTATGGGAAGCATTGTAATGTGCTTTTAAAAAAAATACTGATGTTCTTCTAGTGAAGAGGCAGCTT  
GAAACTGAGATGTAACCAATCAGCTTGGCCCTGTTAAAGATGAAATATTTGATACCAATCTTAACTTCTGAAG  
GAGTCCCTTGCAATTTTCTTATTTTCATTTCTTTGAGTGTCTTAATTTAAAGAAATTTTAACTTCTCTGGAC  
TCATTTTAAAAAATGGAACATAAAAATCAATGTTATGATTATTATTCCTCACTTCTACATCTATGGAATTTCTCC  
CAGTCATTTAATAAATGTGCCTTCATTTTTTC

## FIGURE 337

MKTPWKILLGLGAAALVTIITVPVLLNKGTDADSRKTYTLTDYLNKTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLNSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDI IYNGITDWVYEEEVFSAYSALWWSPNGTFLAY  
AQFNDTEVPLIEYSFYSDESQYPKTVRVPYPKAGAVNPTVKFFVVNTDSLSSVINATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGFRFRPSEPHFTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSYLYISNEYKGMPPGGRNLYKIQLIDYTKVTCLSCELN  
PERCYYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYGQDKIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSVMVLGSGSGVFCKGIAVAPVSRWEYDYSVYTERYMGMLPT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDFQAMWYTDDEHGIASSTAHQH  
IYTHMSHFIRQCFSLP

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**FIGURE 338**

AAGTGTCTGCGAGCCCTGGGCCACGCTGCCGTGCTGGCAGTGGGCCGCCCTCGATCCCTCTGCAGTCTTTCCCTTG  
AGGCTCCAAGACCAGCAGGTGAGGCCTCGCGGCGCTGAAACCGTGAGGCCCGGACCACAGGCTCCAGATGGACCC  
TGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGATACCCCTCGACGA  
GGATGAGGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCCCACTGTGGACACCTCGGC  
CCAGGCGGCCCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAAGGGGCTGGGGCCACGTGCCCCAC  
AGGGTCAGAGCCCTTGGCAGGAGAGACGCCCAACCAGGCCCTGAAACCCGGGGCAAAATCCAACAGCATCATTGT  
GAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCTGTGCGCAACGTGCCCTGGGAATTTGGCGACGTAATTCC  
CGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTCCTCAGCCTCCGCTACCAACAACCTGCACCCAGACTACAT  
CCATGGGCGGCTGCAGAGCCTGGGGAAGAAGTTCGCCTTGGGGGTCTGCTTGTCCAGGTGGATGTGAAAGATCC  
CCAGCAGGCCCTCAAGGAGCTGGCTAAGATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGA  
GGAAGCTGGGCGGTACCTGGAGACCTACAAGGCCTATGAGCAGAAACAGCGGACCTCCTGATGGAGAAGCTAGA  
GCAGGACTTCGTCTCCCGGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCT  
CCTGACCACATTTGGATCTCTGGAACAGCTCATCGCCGATCAAGAGAAGATCTGGCCTTATGCCAGGCCCTGGG  
CCCTCAGAAAGCCCGGAGGCTGTTTGTATGTCCTGCACGAGCCCTTCTTGAAGTACCCTGATGACCCACAGCTGCC  
AAGGAAACCCCAAGTGTATAATAAATCGTCCTCCAGGCCAGGCTC

**FIGURE 339**

MDPGKDKEGVQPSPGPPARKKFVIPLEDEVPFGVAKPLFRSTQSLPTVDTSAQAAPQTYAEYAI SQPLEGAGAT  
CPTGSEPLAGETPNQALKPGAKSNSIIVSPRQRGNPVLKFVRNVPWEFGDVIPDYVLGQSTCALFLSLRYHNLHP  
DYIHGRLQSLGKNFALRVLLVQVDVKDPQQALKELAKMCILADCTLILAWSPEEAGRYLETYKAYEQKPADLLME  
KLEQDFVSRVTECLTTVKS VNKTDSQTLTTFGSLEQLIAASREDLALCPGLGPQKARRLFDVLHEPFLKVP

GCACGCGATCAGAGCAGCGCTGGGTGTTACAGGGCCAAATGCGCGCGCGCCGGGACCGGAGAGCGGATTCGGC  
CCGCCCCCGAGTGGGGGCCCGGTCCGGACCTTGGCGGGGAGCCCGCGGAGAGTTGGCGAAGTCGAAGCCAA  
CGCGCTATGGACATTGGCGGTGTGAGCGCGCGGAGCAGGTGCTGCTGATAGGAGGGCGGTGATTCTGGC  
TTTGTCAGTCTCTCTCGGCAGGGCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGAGCTAATGCTGCAGAT  
GAGACACTCTGGGACCATCTGACAGATCATGTGATGCTCCCTCTTATCTCCCTATTGAGGATTTGGGAGCCCT  
GGAGAGACAGGTTTATCTCGAGAGCCAAATGAAGTGTCTGCTGTCAAGCTTCAGCGAGATTTGTGACAAAT  
GCAGATTCTGAGAACCTTTCTCCATTGACAGCATCTCTGATTGCGAGCTGCTTGTGTCAACCCGGGAGGGCTTC  
TCTCTGACAAGCTGCTTACTCTCTCTCGACACCCCGACAGCTGACCTATCACCCAGCTTGACCCATCTGGG  
CCAGTAGTCCGACAGTAGGAGGAGTGGGTTGAATGTCTTCCAGATCCCTTTGGGACTTCTCCCAACC  
TCTTTCTTAGAGACCTTCTCCCCCAAGCTTCTAGCTGGAGACCCCAAGATCAAGACAGCTTGGGGCCATTC  
CCACTCTCCCAAGCAGCGATGTAGGAGAAGAGAGGAGGTGGCCAGTCTCAGTGGCCAGGATTTCTCGCGG  
GAGCTGTGACAACTGTGTAGCAGTATCCCGACTTCCCATGAGTTTGGCTGCTGAGGAGGAATAAAGCG  
ACAGCAGCAGAGATGGCAGTGCACGAGCTGGTGATGAGAGCATCTCTCTCCCTGAGTGTAGCTTGGGCGCAT  
CACCCATACCTGCTGCCCAACTCACCCACTGGCATCACTTGAAGTAGAGCTTCAGGACGAGCCAGATGATTG  
ACACTGCTGAGGGCTGGTAGTGTCTGGAGATTGTGGGCGAGGCCAGCAGCTGGCGATGACTTGGAGATCCCA  
GTTGTGGTGCGACAGGTTCTCTCGGACCCCGGCTGTGCTCTGTGATGACTCTAGAGACTAGTTTGTGCCITTG  
CAGCTGCTTATGCTACATGTAGAGTAGAGACAGAGGCTGTCTTGCCAAAGTAACCTCTGCTTGAGAAAGAG  
GGGTTGTCACTTGAATCAGAGGAGAGCTGGACTGAGCTAGCTTGTAAAGCCAGGGAGTCTGTGAGCCGTG  
GTGCCAAAGGAGCCTCAGAACCCACTGCCAATGACGACACAGGTTCCAGAGAGCTCAATTCGCGAGCGGAAGAAG  
AAGACAGGAGGACGACCGACGCTTGTGTGAAGGCTATGCCAGGAGGCTGAGTCTATTTCTCGCGGCGAGTCT  
ACTGTAGGTACAGAAGTGACTTCTCAGTGAAGCACTTGAGAAACGCTCAGGAAGAACTCAAAAAGAGTCT  
GGGCTCTCTCAGGTAAGGGGAAGCCCGGCTTGGGCTCGGGCTGGGCGAGCTTGACCTTGGAGAACTCTAGCCCT  
AAGAATCTGGAGAGAGTGTCTGGACAAGATGTCTGCTAAGAGAGGCCCTTAGACCTCTACCCAAAGCTGGCT  
GACACTATCCAAACCAATCTATAACAACTCATCTTATGTTGCACTTGCCCAAGCAGCCCATGCGCAATT  
GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTTCTAGCTTGCCTGCTGTTGTACCCCTGGGTTGGTT  
GACCTTGCTCAACAGCTCAGAACTGGTTGAGCCCTCTCCCGCTGAGCCAGTGTCTGTACACCCAGCTCTGTGGT  
GACTCAGCAGAGGATGACTCCAGTGGTGGTTCCTATCAGATGACTTGCACAGGATGTGATGCTGTCCGCTGTGG  
CCAGCACCAGTGTGATCAGCACTGGTTGACCTTGTTCATAGCTGACTCCAGTTGACCCAGTGTGATGTAAG  
TCAGACCAACTGATCCAGACGCTGGTGAGTGTATCAGCCCTGGGGGTTTCAGACCCCCAGCTCTCTGTGGAG  
TCAGAGTCTGTGACCCCAACCAAGCAATCATCTCTGAAGTCAAGAGGTTGTGGATTCTTGAAATTTGAAGT  
GGTACCAGTGCTACAACCAATGAAGCCAGACTTCGGCTCTACAGCTTATCTGGTACCAGCGACAGGAAGCAACA  
CGCCAGACAGCAAGAACAGAGAAAGTCCACAGGCCCAACCTGGGAAGTGGCTAGCTTCCAGAGACTCCCAACA  
GGGCTGGCAGACATCTCTGTTGTGATCTCCCAACGCCCCAGCCAGGAAGACAGCTTCGACAGAGCCCTGAA  
ACACCCCTTGAGATTGGCTTGTGAGCTGTAGGTTCCAGGCTGTCTTCTCTAGTCTTGAGCCACTGTAAAGCAAA  
CTGTGGGCTCATCTCCCACTGACAGGTTGCCATCCAGGATGCCACTTGTGGCAGAGCTTCCCTCTGTG  
CAGTGTGTGTGCCCTGTCTGGCCCAACTCTCTGATGTCTGTGCTGCCCTGCTTCTCTGAGTGGGCTTGGC  
ATGCCCCCACTTGCCCCCACTCTGCACTTGCAGCTCTTAGATTTCATGTGCTATGGGCGAGTACTACCTAT  
CCGTTTACTACTATGCCCCCTTGCCCTCTGGCTTGTATCTCTCATGTGTGCCCTTCTGGCTATCTTGCGT  
CCCCCCCACCAAGCGTGCCCTAGTGTCTGTGATCTCTGTGGCTATGCGCTGCTCCCACTTGCAGTGTGCT  
TGGGCAAGGCTCTCTGCCCACTCTCACCTTACAGTTTCAATGTACTTATGGCCCTTGGGATGGGGCCAGG  
CCTTCAACATGCTCTATCTGTGCTACTGTTCCCCCACTCTTGGCTCCAGGCTCCATTGGGAGAGCTGTTC  
CAACTTAAATGGAGTTAGGGGCACTCCAGTGTGCCCTCTGAAATGACTTCCCTTGTGATGGCTCTCTCC  
CTCAGTCTTGGGCTACTTGCCATGGAGCTCTCAGACAGAGCTCAACGAGTGGAGTCAAGCCAGTGGCTGCA  
TCTCCCATCTGCAACAAAGGTGCTGCCCTGGTGCAAGTCCCGATGAAGGCTTAGCATGTGTGTCTGTCT  
GAGGTGTGACTGTTTGAAGGAGCTGCATCAGAGAGCTAAGGCTGAGACCAAGACAGCCAGCCCGGGAAG  
CCCCCTTGGCTGTCTACCAAGGCTGTCTCCACACCAAGGACAGAGCACTGTCCCAAGCTGGCTGTCTCAACCA  
CGCCGCTTAAAGGAGCTGTCTCTGCTCCCTACCCCACTCAGGTTGCTGGAATGCTGTGACGGCTTTCAT  
AGTGAAGTTGGAATTAGGACATCGCACTGTCTCAGTCTGTGGAGCAGTTTGAAGAAATCAGAAGCCAAAAGGAG

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**FIGURE 340B**

TGTCCTCCTCCGGCTCTGCTGACAGCTTGGCTGTAGGAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG  
CCCCTAGACCGGTTACAAGCCCCAGAAGTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG  
TTATGGAAGCCCTGGCTGCTGCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCAGGAGGGAACC  
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTGCGCTCCAAGAAGGGGTCCATGGCCCTAGT  
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGAGCAGGACCCCCCAAAAAGATGCCTGCCCCA  
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATAAACTGTCTTGTCCCTTG  
GGCCAGCTGCCCCCTCCGCCCCATGCATAGCTGCTCCCGGAGCCGCTTGATCAGAGGACTAGCAGTGAGCAG  
GCAGATCCCTCAGCACCTTGCCCTTGCCCCATCCAGCTTGCTGTCCCTGAGGCTCACCCTGCCGGAATGACATG  
AACACTAGGACTCCCCCTGAACCTCAGCCAAGCAGCGGTCAATGGCTGTTACCGAAAAGCCTGCAGGTGAGCC  
AGCCCTCAAGCCAGGGCTGGCAGGGCCGCCAGGCGCAACAGCCGTTCTGTAGCTCTGGGTCCAACCGGACT  
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCCACAC  
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTCGTCATCATCT  
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCGCCGGAGAAGT  
GACAGGAGGCGCGGTACAGCTCTTATCGTTACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT  
GCAATAGAAGAAAGAGGGTGGTCTTCATTGGAAGATACCTGGCCGATGACTCGATCAGAGCTGAAACAGAGG  
TTCTCCGTTTTTTGGAGAGATTGAGGAGTGACCATCCACTTCCGTGTCCAAGGGGACAACATACGGCTTCGTCACT  
TATCGCTATGCTGAGGAGGCATTTGACGCCATTGAGAGTGCCCAAGCTGCGGCAGGCAGATGAGCAGCCCTTT  
GATCTCTGCTTTGGGGGCCAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT  
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCAGAGAAGACCTC  
AGGAGCTAACCTTGGGCCCTTCCTGCTATCCTTTTTCTCCTTTTGAGGTTGCCCAACCTCCTCCACCCCTTCCC  
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAGAAATGGAAAAAGTGAATAAAAAATATG  
TTGAATCAGATTTTTTAAAGGGGTATTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCACTTCCTATG  
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGGAAACATAAGTCACTATGCAGACTAATAAACATCAACTAG  
AGAGAGAAAAA

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**FIGURE 341**

MAARRRRRDGVAPPVSGGPGFDPGGGARGSGWRSRQAPYGTILGAVSGGEQVLLHEEAGDSGFVLSRQGPSLRD  
KDLEMEELMQDETLTLLGIMQSYMDASLISLIEDFGSLGESRSLSDHNEVSLTLTALTEILDNADSENLSPFDSIP  
DSELLVSPREGSSLLKLLTLSTRTPPERDLITPVDPLGPFSTGSSRGSGVEMSLPDPWDFSPPSFLETSSPKLPW  
RPPRSRPRWGQSPFPQQRSDGEEEEEVASFSQILAGELDNCVSSIPDFPMHLACPEEDKATAAEMAVPAAGDE  
SISLSSELVRAMHPYCLPNLTHLASLEDELQEQQDDLTLPPEGCVVLEIVGQAATAGDDLEIPVVVRQVSPGPRPV  
LLDDSLSETSSALQLLMPTLESETEAAVPKVTLCSEKEGLSLNSEEKLDACLLKPREVVPEVVPKEPQNPPANAA  
PGSQARAKGRKKKSKEQPAACVEGYARRLRSSSRGQSTVGTEVTSQVDNLQKQPQEELQKESGPLQGGKGPRAWA  
RAWAAALENSSPKNLERSAGQSSPAKEGPLDLYPKLADTIQTNP IPTHLSLVDSAAQASPMFVDSVEADPTAVGPV  
LAGVPVPDPLVDLASTSSELVEPLPAEPVLINPVLADSAAVDPVAVPTSDNLPPVDAVPSPGAPVDLALVDVPV  
NDLTPVDPLVKSRTDPRRGAVSSALGGSAPQLLVESELDPPKTI IPEVKEVVDSLKIESGTSATTHEARPRP  
LSLSEYRRRRRQQRQAETEERSQPPTGKWP SLPETPTGLADIPCLVIPAPAKKTALQRSPTPLEICLVPVGPS  
PASPSPEPPVSKPVASSPTEQVPSQEMPLLARSPPPVQSVSPAVPTPPSMSAALPFPAGGLGMPPSLPPPLQPP  
SLPLSMGPVLDPDFTHYAPLSWPCYPHVSPSGYPCLPPTPTVPLVSGTPGAYAVPTCSVPWAPPPAPVSPYSS  
TCTYGLGWGPGQGHAFWSTVPPPLPPASIGRAVPQPKMESRGTPAGPPENVPLPSMAPPLSLGLPLGHGAPQT  
EPTKVEVKVPVSPHPHKHVSALVQSPQMKALCVSAEGVIVEEPASERLKEPTQETRPREKPPLPATKAVPTPR  
QSTVPKLPVAVHPARLRKLSFLPTPTRTQGSSEDDVQAFISEIGTEASDLSLLEQFEKSEAKKECPPAPADSLAVG  
NSGGVDIPQEKRPDLRLQAPELANVAGLTTPATPPHQLWKPLAAVSLAKAKSPKSTAQEGTLKPEGVTEAKHPA  
AVRLQEGVHGFSRVHVSGGDHDCVRSRTPPKKMPALVIEVGSRWNVKRHQDITIIPVLSLGPAAAPPPPCIAAS  
REPLDHRSTSSEQADPSAPCLAPSSLLSPEASPCRNDMNTRTPEPSAKQSRMRCYRKACRSASPSSQGWQGRGR  
NSRSVSSGNSRTSEASSSSSSSSSSSRSSRSRLSPPHKRWRRSSCSSSGRSRRCSSSSSSSSSSSSSSSSSSSS  
SRSRSPSPRRRSDRRRRYSSYRSHDHYQRQVQLKERAIEERRVFIGKIPGRMTRSELKQRFVSFGEIEECTIH  
FRVQGDNYGFVTYRYAAEFAAIESGHKLQADEQFDFLCFGGRRQFCKRSYSDLDSNREDFDPAFVKSFKFDSL  
FDTLKQAQKNLR

**FIGURE 342**

CCGGAAGTGACTGCGGACGAATCGGCCTTTGCCGAGGCTGGCATAGATTGGCTGTCTCCGCTCATAGCTGCTTT  
TGGCGCGAAAGATGCCGGGTCTGGTTGACTCAAACCCTGCCCCGCCTGAGTCTCAGGAGAAGAAGCCGCTGAAGC  
CCTGCTGCGCTTGCCCGGAGACCAAGAAGGCGCGCATGCGTGTATCATCGAGAAAGGAGAAGAACACTGTGGAC  
ATCTAATTGAGGCCACAAAGGAATGCATGAGAGCCCTAGGATTTAAAATATGAATGGTGGTCTGCTGTGTGAAT  
AAATAATTCCTGAAGAATGAAGAAGATTAAATTTGGGAGTTCTTTGACGAACTTTGATATGTGAAAAAGTATTT  
ATAATTTATTGTAAGAAGAAAGTAAATATTACTAGTGGAAGATCTTC



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**FIGURE 343**

MPGLVDSNPAPPESQEKKPLKPCCACPETKKARDACII EKGEHCGLIEAHKECMRALGFKI

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**FIGURE 344**

ATCCAATACAGGAGTGACTTGGAACTCCATTCTATCACTATGAAGAAAAGTGGTGTCTTTTCTCTTGGGCATC  
ATCTTGCTGGTTCTGATTGGAGTGCAAGGAACCCAGTAGTGAGAAAGGGTCGCTGTTCTCGCATCAGCACCAC  
CAAGGGACTATCCACCTACAAATCCTTGAAGACCTTAAACAATTTGCCCAAGCCCTTCTCGCAGAAAAATTGAA  
ATCATTTGCTACACTGAAGAAATGGAGTTCAAACATGTCTAAACCCAGATTGAGCAGATGTGAAGGAACGTATTAAA  
AAGTGGGAGAAACAGGTGAGCCAAAAGAAAAAGCAAAAGAAATGGGAAAAACATCAAAAAAGAAAGTTCTGAAA  
GTTGCAAAATCTCAACGTTCTCGTCAAAGAAGACTACATAAGAGACCATTACCAATAAAGTATTCTGTGTTAA  
AAATGTTCTATTTTAAATTATACCGCTATCATTCCAAGGAGGATGGCATATAATACAAAGGCTTATTAATTGAC  
TAGAAAAATTTAAACATTACTCTGAAATTGTAATAAGTTAGAAAAGTTGATTTTAAAGAACCCAAACGTTAAGAA  
TTGTTAAAGGCTATGATTGCTTTGTTCTTCTACCAACCCACCAAGTTGAATTTTCATCATGCTTAAAGCCATGATTT  
TAGCAATACCCATGTCTACACAGATGTTTCAACCAACACATCCCCTACACAGCTGCCTGGAAGAGCAGCCCT  
AGGCTTCCACGTAAGTGCAGCTCCAGAGAGTATCTGAGGCACATGTGAGCAAGTCTTAAGCCTGTTAGCATGCTG  
GTGAGCCAAGCAGTTTGAATTTAGCTGGACCTCACCAAGCTGCTGTGGCCATCAACCTCTGTATTTGAATCAGC  
CTACAGGCCCTCACACAAATGTGCTGAGAGATTCTATGCTGATTGTTATTGGGTATCACCCTGGAGATCACCAG  
TGTGTGGCTTTCAGAGCCTCCTTCTGGCTTTGGAAGCCATGTGATTCCATCTTGCCCGCTCAGGCTGACCACT  
TATTTCTTTTGTGCTCCCTTTGCTTCATTCAAGTCAGCTCTTCTCCATCCTACCAATGCAGTGGCTTTCTTCT  
CTCCAGTGCACTGTGCATATGCTCTGATTATCTGAGTCAACTCCTTTCTCATCTGTGCCCCAACCCCCACAGA  
AGTGCTTTCTTCCCAATTCATCCTCACTCAGTCCAGCTTAGTTCAGTCTGCTCTTAAATAAACCTTTTGT  
GACACACAAATTATCTTAAACTCCTGTTTCACTTGGTTCAAGTACCACATGGGTGAACACTCAATGGTTAACTAA  
TTCTTGGGTGTTTATCTTATCTCTCCAACAGATTGTCAGCTCCTTGAGGGCAAGAGCCACAGTATATTTCCCTG  
TTTCTTCCACAGTGCCTAATAATAGTGTGGAAGTGGTTTAAATAATTTTAAATGATGTTGTTATGGGCAGGA  
TGGCAACAGACCAATGTCTCAGAGCAGGTGCTGGCTCTTTCTGGCTACTCCATGTTGGCTAGCCCTCTGGTAA  
CTCTTACTTATTATCTTCAAGACACTCACTACAGGGACAGGGATGATGCAACATCCTTGTCTTTTATGACAGG  
ATGTTTGCTCAGCTTCTCCAACAATAAGAGCAGTGGTAAAAACCTTGGCGATATTCTGGACTGTTTTAAAAA  
ATATACAGTTTACCGAAATCATATAATCTTACAATGAAAGGACTTTATAGATCAGCCAGTGACCAACCTTTT  
CCAACCATACAAAAATCCTTTTCCGGAAGGAAAAGGGCTTTCTCAATAAGCCTCAGCTTTCTAAGATCTAACAA  
GATAGCCACCGAGATCCTTATCGAAACTCATTTTAGGCAATATGAGTTTATTGTCCGTTTACTTGTTCAGAG  
TTTGATTGTGATTATCAATTACCAACCATCTCCCATGAAGAAAGGGAACGGTGAAGTACTAAGCGCTAGAGGA  
AGCAGCCAAGTCGGTTAGTGAAGCATGATTGGTGCCAGTTAGCCCTCTGCAGGATGTGGAACCTCCTTCCAGG  
GGAGGTTCAAGTGAATTTGTGAGGAGAGGTGTCTGTGGCCAGAATTTAAACCTATATCACTTTCCCAAAATTGAA  
TCAGTCTCACACTGCTGATGATTAGAGTGTCTGCCGTGGAGATCCCAACCCGACGCTTATCTAATCATGAA  
ACTCCCTAGTTCTTCTATGTAACCTTCCCTGAAAAATCTAAGTGTTCATAAATTTGAGAGTCTGTGACCCACTTA  
CCTTGCTACTCAGAGGTAGACAGTATATACTAACAACCAAGACTACATATTGCTACTGACACACACAGTTATAA  
TCATTATCATATATATACATACATGCATACACTCTCAAAGCAATAATTTTCACTTCAAAACAGTATTGACTT  
GTATACCTTGTAATTTGAAATATTTCTTGTGTTAAATAGAAATGGTATCAATAAATAGACCATTAAATCAG

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**FIGURE 345**

MKKSGLVFLLGIIILLVLIGVQGTIPVVRKGRCSICISTNQGTIHLQSLKDLKQFAPSPSCEKIEI IATLKNGVQTCL  
NPDSADVKELIKKEKQVSQKKKQKNGKKHQKKKVLKVRKSQRSRQKKT

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FIGURE 346

GAGCGCGGTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTGTGGTGGTGAGTCCGAGAGGCTGCG  
TGTGAGAGACGTGAGAAGGATCTGCCTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCTGGGGTCTGT  
GAGGCACGGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCTGAGCTGTGCTGCTGCTCAGTCTCAAAACCCGA  
TCCCAGGCACAGGCTACAATCAGTTTTCAAAAAGGAAGCTGTCTCGGGCATTTGAACAAAGCTAAAACTCCAGT  
GATGCCAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGAAAGGCCCTGCCTCTCAGCCCC  
AGGAAACGCTCGGGCGATGACAACCTATGCAACACTCCCCATTACCTCCTTGTCTCCACCAAGCAAGGCAAG  
AAAGAGAATGGTCCCCCTCATTACATACACTTAAGGGACGAAGATTGGTATTGACAATCAGCTGACAATTAAG  
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTACCAAAACAAAATACCTTCTCAGTTAGAAAAAGTCAAGAGATC  
ACAACAAATCTGAGCAGAGATGTCCACTGAAGAAAGAAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT  
TGCTACCAAGCAAGCAAGCTGGTCTTGAACACAGCTGTCCAGATCGGCTGCCTGCCAGGGAAGGAGATGGAT  
GTCATCAGGAATTTCTGAGGGAACACATCTGTGGGAAAAAGCTGGAAGGCTTTACCTTTCTGGTGCTCCTGGGA  
ACTGGAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG  
CTGAATTGCATGCTCTGAGGACTGCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTGTGAGGAAGAGGTA  
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG  
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAGGCCAGGATGTATTGTACACGCTATTGGAATGGCCATGG  
CTAAGCAATTTCTACTTGGTGCTGATTGGTATTGCTAATACCTTGGATCTCAGAGATAGAATTCACCTAGGCTT  
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACCTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG  
CAAGATCGACTTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTTCTGCGCCGCAAGATC  
TCTGCTGTTTCAGGAGATGTTCCGAAAGCACTGGATGTTTGCAAGGAGAGCTATTGAAATGTAGAGTCAATGATGC  
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAATACCTTCTGAGCCTCTGATTTCCCAAGAGGTTGGT  
CTTATTACATATCCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT  
TCCCTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAAGTTGAAATCAAAGAGGTC  
ACTCTGGGGAAGTTATATGAAGCTACAGTAAAGCTGTGCAAAACAGCAGGTGGCGGCTGTGGACAGTCAGAG  
TGTTTGTCACTTTACGGGCTCTTGGAAGCCAGGGGCTTTTAGGATTAAGAGAAACAGGAAACCCGTTTGACA  
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCGAAGAGATAAAGCTTTAATTGGGAAATATCTTA  
GCTACTGGATTGCTTTAAATCTTCTCTTACACCCACCCGAAAGTATTACAGCTGGCATTTAGAGAGCTACAGTC  
TTCATTTTAGTGCTTTACACATTCGGGCTGAAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTAAT  
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCATAAAAAGTGACCAAGTA  
GACCTTTTTAATTACATTCACACTTCTACCACTTGATGATCTCTAGCCAATGTGCTGCAAGTGATCAGATCT  
GTGTAGAGGAATGTGTATATTTACCTCTTCGTTTGCTCAAAACATGAGTGGGTATTTTTTGTGTGTTTTTT  
GTTGTTGTTGTTTTGAGGCGGCTCTCACCTGTTGCCAGGCTGGAGTGCAATGGCGCGTTCTGCTCACTAC  
AGCACCGCTTCCCAGGTGGAAGTATTCTCTTGCCCTCAGCTCCCGAGTAGCTGGGATTACAGGTGCCACCAC  
CGCGCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGTTTACCATGTGGCCAGGCTGGCTTGAACCTCTG  
ACCCTCAAGTGATCTGCCACCTTGGGCTCTCTTAAGTGCTGGGATTATAGGCTGAGCCACCATGCTCAGCCATT  
AAGGATTTTGTGAAGAATTTAAGTTTAGGGTAAGAAGAATGAAATGATCCAGAAAAATGCAAGCAAGTCCAC  
ATGGAGATTGGAGGACTGGTTAAAG

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**FIGURE 347**

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQIVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP  
PKQGGKENGPPHSHILKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEIITNSEQRCPLKKEACVRLF  
KQEGTCYQQAHLVNTAVPDRLPAREREMDVIRNFLREHICGGKAGSLYLSGAPGTGKTACLSRILODLKKELKG  
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVDEMDQLDSKGQDVLYTL  
FEWPWLSNSHLVLIGIANTLDLTDRIPLRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF  
CARKVS AVSGDVRKALDVCRRATIEIVESDVKSQITLKP LSECKSPSEPLIPKRVLIIHSQVISEVDGNRMILSQ  
EGAQDSFPLQQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQAQVAVDQSECLSLSGLLARGILGLKRNK  
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

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FIGURE 348

GAGCGCGGTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGGCTCGG  
TGTGAGAGACGTGAGAAGGATCTGCAGTGGAGAGGTGGAAGAAGAGGATTGCTCGAGGAGGCTGGGGTCTGT  
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCTGAGCTGTGCTGTGCTCAGCTCAAGCTCAAAACCCGA  
TCCGAGGCACAGGCTACAATCAGTTTTCCAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT  
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCTCGTGTAAAGGCCCTGCCTCTCAGCCCC  
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTACCTCCTTGTTCTCCACCAAGCAAGGCAAG  
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTGACAACTCAGCTGACAAATTAAG  
TCTCTAGCAAAAGAGAACTAGCCAAAGTTCCACAAAACAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC  
ACAACAAATTTCTGAGCAGAGATGTCCACTGAAGAAAGAACTGTCATGTGTGAGACTATTCAGCAAGAAGGCACT  
TGCTACAGCAAGCAAAAGCTGGTCTTGAACACAGCTGTCCAGATCGGCTGCCCTGCCAGGGAAGGGAGATGGAT  
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAGCTGGAAGCCCTTACCTTTCTGGTGTCTCCGGA  
ACTGGAAAACTGCCTGCTTAAGCCGATTTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG  
CTGAATTGCATGTCTTGAGGACTGCCAGGCTGTATTCCAGCTATTGCTCAGGAGATTGTGTCAGGAAGAGGTA  
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGA AAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG  
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAGGCCAGGATGTATTGTACACGCTATTGTAATGGCCATGG  
CTAAGCAATTTCTACTTGGTGTGATTGGTATTGCTAATACCTGGATCTCAGAGATAGAATTCTACCTAGGCTT  
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACCTCCACCTTATACAGAAATCAGATAGTCACTATTTTG  
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTTCTGTCGCCGCAAGTC  
TCIGCTGTTTCAGGAGATGTCGCAAGCACTGGATGTTGTCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC  
AAAAGCCAGACTATTCTCAAACTGCTGCTGAATGTAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT  
CTTATTCACATATCCCAAGTCACTCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT  
TCCTTCCTCTTCAGCAGAAGATCTTGGTTTGCTTTTGATGCTCTTGATCAGGCAGTTGAAAAATCAAGAGGTC  
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTGCAAAACAGCAGGTGGCGCTGTGACCAGTCAGAG  
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA  
AAGGTGTTTTTCAAGATTGAAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA  
GCTACTGGATTGCTCTAAATCTCTCTTACACCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC  
TTCATTTTAGTGCTTTACACATTTCGGGCTGAAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT  
CTATAGATCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCTATAAAGTGACCCAGGTA  
GACCTTTTTAATTACATTCACTACTTCTACCACTTGATCTCTAGCCAATGTGCTTGAAGTGTACAGATCT  
GTGTAGAGGAATGTGTGATATTTACCTCTTCGTTTGCTCAAAACATGAGTGGGTATTTTTTGTGTGTTTTTT  
TGTTGTTGTTGTTTTGAGGCGCGTCTCACCTGTTGCCAGGCTGGAGTGAATGGCGCGTTCTCTGCTCACTAC  
AGCACCCGCTTCCAGGTTGAAGTGATTCTCTGGCTCAGCTCCGAGTGTGAGTGGGATTACAGCTGCCCCACCA  
CGCGCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTG  
ACCCTCAAGTGATCTGCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT  
AAGGTATTTTGTGAAGAAGCTTTAAGTTTAGGGTAAGAAGAATGAAATGATCCGAAAAAGTCAAGCAAGTCCAC  
ATGGAGATTGGAGGACACTGGTTAAAG

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**FIGURE 349**

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQIVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP  
PKQKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF  
KQEGTCYQQAQKLVNLTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLRLQDLKKELKG  
FKTIMLNCMSLRTAQAVFPAIAQEQEEVSRPAGKDMMRKLEKHMTAEKGPIMVLVLEMDQLDSKGQDVLYTL  
FEWPWLSNSHLVLIGIANTLDLDRILPRLQAREKCKPQLNFPPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF  
CARKVS AVSGDVRKALDVCRRATEIVESDVKSQITLKP LSECKSPSEPLIPKRVG LIHISQVISEVDGNRM TLSQ  
EGAQDSFPLQQKILVCSLM LLI RQLKIKEVT LGKLYEAYS KVC RKQ QVA AVDQ SECLSLSG LLEARG ILGLK RNK  
ETRLTKVFFKRIEKEIEHALKDKALIGNILATGLP

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FIGURE 350

GGAGTGCGGGGCGCCCGGCCAGGGGAGCCGCCACAGCCATGCGATTGCAAAGATAGACCAGCTTTTCCAGTTAA  
 GAAGTTAATACAAGCCCGTCTGCCGTTTAAAGCGCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA  
 CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCGGATTAGAGGCGCTTTTGGACACCCCTTGGAAAACAACTGTCA  
 TGTGGGTTCTGACATAGACTTTAGAGCCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTAAAGAAATAG  
 AATCGAAACAGGATATTGGCCAGAGCACAGTTCATTTGATTGTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT  
 TGTGGACCACATAAATAAATCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG  
 GGATCAGCAGGGGTTGTTGAAGGCCATTGAGAACACACAAGTTGGCATTTCCTGGAGAGACCCCTTCAGACATTCC  
 TTGCAAACAGAGGAGGAGGGTGTGTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTGCCACG  
 GAGCTGCCCGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG  
 CATCTGTTCAAAGGGAAGGTTGGTGGCTTGCAGGACATCTTGGCTGTGAGACCACCGCAATCAAGTC  
 CCTTCCAGCCACACCCCAAGGCAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTCCCCGAAGAGACTC  
 TGTACTCAGCCATTGCTCCCTGAGCTCTCCCTTCTCCACAGCTCGCCCGAGGGGCCGCTGCTCCCCCAAAGCA  
 GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC  
 AGAGAAGAACAGCTCAGACTGCAAAGAGATCAGGAGCGCTGGGCAAGCAGCTCAAGTTACGTGACAGAAAGGGA  
 AGAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAAGGAGGAGCCAAAGAAAGGAGGAAGGAGAAGGA  
 GCTTAAGGAAAAGGAGAGGGCGGGAGAAGCGGGGAGAAGGATGAGAAGGAGAAGCGGAGCAAGCAGCGGCTCAAGGA  
 GGAGCGGCCCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAAGAAAAAGGAAAAAGGAAAGAGAAACG  
 GTTAAAGAGAAGAGAAGCGCATTAAGCAGAGAAGGCCGAATCAGGAGTTCTTCCAGAAACCAAAGACTCC  
 ACAGGCCCCCAAGACCTTGGCCGGCTCCTGTGGGAAGTTTGCCTCTTTGAAATTAAGAGACACATGTTCTTGGC  
 CCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCGACTCTCTCAGCAGCAGAGCGGGCA  
 GTTCTCCTTCTTGAAGACCTCAAAGGCCGGCAGCCCTGAGGTCCGGACGACAGCTTTCCACCCGGAATGC  
 AGATATTTTTAACAGTGATGTCGTCTATCTGTGAGCGTGGGAAGGCGCAGCGTGTTCCTCCAGAGGAGGAAGTTTG  
 CAGGATGAAGCTCTTGCAGTTCTGTGAGAACACCGGCCCTGCTACTGGGGTACCTGGAATAAGAACCGGCACCT  
 CATCCGCGCGGAGACCCCTGGGCCAGGACACGAAGCTCTTGAGCTATGAGGTGGACAGTGTATGAGGAGTGGGA  
 AGAAGAGGAGGCTTGGGGAGTCCCTGTCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA  
 GGACAGTGGTTTCTTGTGGCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCACCCCTGA  
 GAACCATAAAGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCTTGGCTAAGGGGAAGCGCTTTCGCGT  
 CCTGCAACCTGTGAAGATCGGCTGCGTGTGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTATGCA  
 GCAGTTGCGACCTGCTTCTTGGAGACCTTGC CGGCCAGGAGGACGACGCCCAAAGGCTTCAAAGCGGAGAG  
 GAGAGACGAGCAGATCTGGCCAGCTGCTGCCGCTCTTGACAGGCAATGTGAACGGGAGCAAGGTATCATCTCG  
 GGAGTTCAGGAGCAGTCCGCCGGGGACTGCTCAGCAACACACCGGCAGCCCGGAGCGCCCTCCACACCTA  
 CCTGCACACCCCAACCCCAAGCAGGATGCCGCCATCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA  
 CTCAGTGTATGAGAAGCGGCTGACTTCAGGATGTCTGGTACGTGCACCCGCGAGGTGCTACAGAGCTTCCAGCA  
 GGAGCACTTCCCGTGCCGTGCCAGTGAGGACTATGTGACATCGGTGCCCTCGGCCCAAGAGGACAGTGGCAG  
 CGTCCCTTCCAGGGGCCACCGGAGGCACTCCCATCTCGCTGAAGAGGAAGTCAAGCGGGCAGCATGTGCATCAC  
 CCAATTCATGAAGAGCGCAGGCACGACGGCCAGATTGGTGTGAGAGCATGGACGGCTTCCAGGCGAGCACGGA  
 GGAGGAGGAAGAGGAGGAGGCGACTGTATGATCTGTGATGTGCCGAGTGTGAGGCTTCAAGCCCGTGTGG  
 AGCCGCTTCCGAGCTGGGGTGTGTGGGGGTGGACACCGGCAAGGCCACCTGACCGGAGCCCACTGGGTGC  
 ATCCGAGAGCAGGGGTGACGTATGTAGAAGCTTAGGGTCTCTCCACAGAGCAGATACTTGAACCGCATCA  
 ATTCTGTGTAAAGACACTTTGTCTGCTTACGGACCTCCCCAAAGTGTGACAGATTCTATATAGGATGCTGG  
 ATTAGTTCTTGTGATATTGTAAAAATTCGCCCAAGAGCCGATATGAATCTGCCCTTTAATAAGCATTATGA  
 GATTGTGCCCTATTGGGGAAGCTGCGGGCAGAGA



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**FIGURE 351**

MDCKDRPAFFVKKLIQARLPFKRLNLVPGKGADMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN  
KGKPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDLSVDHNKLNSEASPSREAINGQREDTGDQQGLLKAIQNDK  
LAFPGETLSDIPCKTEEEGVCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVPMMVLQ  
DILAVRPPQIKSLPATPQGKNMTPESVLESFPEEDSVLSHSSLSSPSTSSPEGPPAPPKHSSSTSPFPTSTPL  
RRITKKFVKGSTENKRLQRDQERLGKQLKLRAEEREKEKLKEEAKRAKEEAKKKKEEKLKEKERREKREKD  
EKEKAQKRLKEERRKERQEALEAKLEEKRRKEEKLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF  
APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQSGEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG  
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDDEWEEEEPGESELSHSEG  
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD  
RDCAGDDLKVQQFAACFLETLPAAEEQTPKASKRERRDEQILAQLPLLHGNNVNGSKVIIREFQEHCRRLLSN  
HTGSPRTPTSTTYLHTPTPSEDAAIKSKRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQQEHLVPQCQWSYVT  
SVPSAPKEDSGSVPTGSPSQGTPISLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFCQADTEEEEEEGDCMIVD  
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

GCAGTTTCAGACCCCCACACCCATCAAAGAGCCGCTCTCCCCCGCAGGCGCCTTCGCGCCTCCCTCCCTT  
CCTTTCTCTTCCGCTCCTCTTCCGACCTGTCCACCCGGGAGGAAGGGAGCTGGAAGGGGGCGGAAACCTCTCCC  
CTCCAAAAAGCACACAAACTGTTCAGTCGGGAGGAGCCGGGTTCGCCCTTCGCCGACAGCGGGGGGCTTTGTT  
CCCCGCAGTTGTTTCTGCCCATTTGACCTGTACAGCTGCTGCGGAAACCGCTGCTGTTGACCTTTGGTTGAACCTGC  
TAAGGCGATTTTGTGATTTTCTTTCTTTTCCGCGAGGGCTGTCTTTTGTCTCCAAATGAGCCAGTCCCC  
CTCCCTCTCTCCCAAAGCGCTCCAAGAGAAAGTGCCAGGAAGGGGCTGTCCCGAAGGCGCTGGCGGCTGAGCGG  
GGCCAGGTCCTGGTTAGGCCACAGGTGGGCGTCCGCGCCATTGTTTGAGCTGTTCGGCGCTGTGGGAGAGAT  
GAGGGCAATTCCTCTGGGACGCAAGTCCCCTCGAATGCCCAGGGGCTGGCCGGGATGTTCCCCGCACGGCGCTGCC  
CTCGAGTCCCCCGATGGAGAGCGCGGGCGCGCTTCTTTCGTGGCGTCCAAACCCGGGACAGCTAGAACACA  
GCAGGGCTGGGACTGGGTTTCAGCCCCACGTGGAGTCTGGATTGTTTGTGTTGTTTGTCTTCTTCTTCCGGAA  
GAAATCCCGAGGGGACCCCTAGAGCGGCAGCTCCAGGACCTCGGCCCTTGGGCTTCCGGGGTGCAGCCACTT  
AGGCCCCGCTCCCGGGAGAGGGGATTTTTTTAAGATTATCCCAAGGCGCGGCATTTCCTGTCTCCTC  
GTGAATCCCGTTGAGAGTCTCCTCCCCAACCTCTCCATTTCGCCAGCCAGCCGATTTCAGAGCCCTGGGAGA  
TTCTGGGCGAGGCTAGTGACTGGGTAGTACAGGCTCTAGCCCCACCATTGCTCTCTCTGCTTTCAGTTCGCCAG  
GAGGGCAATGGCATCAACAGCACAGCTCTGGGGGATGTCAATATTGCATCCTTTTCTACCTTAAAGGGGAAATG  
ACTCGCTTTTCTGCTTGCAAATATGGTAGTTTCTGCTTACAAATGTAATACAATGCCATGACAGCCAAAGGACTG  
GAAGCATAAGTTGCTAGTCTTACAGGTGATTTTTTACAATGAAGCAAACCTCACTATGTTAGACACCATTTACAT  
TGGATGTTCTCCAACTAACAAAGTAACTAAAGACAGATGTAGGTGTAATTTGAGAGTGAAATTTGACCTTTAGA  
CCGTCACAACCTCTCTGGGCTTATCTTGGGTGCTTATAGGAGAGGTGGGCTCCACCCACAAAAATGGACTGCTCA  
GAAAAATGAGGGAGAGAGAAAGGGTGGCCACTTCCCCGAGCCAAGAAATTCCTTGAAAAAAATCAGAACATCTG  
AAACCCAGAGAGCCGATTTCTTACC GGAGGCAAGTTCCTGGCTAACCGAGGAAGCAGCAGCTGGGAGAAAGAT  
CACTCCAACGGAAGCCAGTTTGCTGAACATAGCAGATCGCCAGGAGGACTGGGAGAGACTGCAAAACAGTTCGA  
GCCCCAGCATGGCGTTAGGTGTGACGACAGCTGGCAGGAAGGTCCAGGTGCTGTGTTTCAGAGTCTCAAGCGCG  
TATGAGAGGTTTTCTCCGAGTACCCAGAATTCTGTTCTAAACCAGGCGCTGGCAGCATCCACCCCGGTT  
CCCCCAGTGCCACAGAGCCCTTGGACCTGGGCTGCAGCTCCTGTGGGACCCCATACACGACAGCGGGGGTCTCT  
GTGGAGATCCTTCCCTCTACCTCGGCAGTGCTTACCATGCTGCCCGAGGACATGCTGGAGCGCTGGG  
ATCAGGCTCTGTTGAATGTCTCTCGGACTGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGATCCCA  
GTGGAGATAAACCAAGGCCGACATCAGCTCCTGGTTATGGAAGCCATAGAGTACATCGATGGCGTGAAGGAC  
TGCCGTGGGCGGCTGCTGCTGTCATGCGAGGCGGCATCTCGCGTTCGGCCACCATCTGCTCTGGCTTACGTATG  
ATGAAGAAACGGGTGAGGCTGGAGAGGCCCTTCGAGTTCGTTAAGCAGCGCCGACGATCATCTCGCCCAACTTC  
AGCTTCATGGGCGAGCTGCTGCAGTTTCAGTCCCAGGTGCTGGCCAGCTCCTGTGCTGGGAGGCTGCTAGCCCC  
TCGGGACCCCTCGGGAGCGGGGCAAGACCCCGCCACCTCCGAGTTCGCTTTCAGCTTTCCGGCTCCTC  
GTGGGCTGTCATCGGCCCCAGCAGCTGCTTACCTGTCACAGCCCATCACCACCTCTCCAGCTGTTAGAGC  
CGCCTTGGGGGGCCAGAACCAGAGCTGGCTCCCAGCAAGGGTAGGACGGGCGCATGCGGGCAGAAAGTTGGGA  
CTGAGCAGCTGGGAGCAGGCGACCGAGCTCCTTCCCATCTTTTCTCTTGGCAGACGACGAGGCGGCGAGCAAT  
GGCAATAAGGACTCCGAATACATAATAAAGCAAAACAGAACACTCCAATTTAGAGCAATACCGGCTGCCCGACA  
GCCAGGGAAGACCTTGGTTTGGTTTATGTGTGAGTTTACCTTTCCGATAGAAATTTCTTACCTATTTTTAA  
GCAGTAAGGCTTGAAGTATGATGAACCCACAGATCCTAGCAATGTGCCAACCAAGCTTTTACTAAAGGGGGAGGAA  
GGGAGGCGAAAGGGATGAGAAGTCAAGTTTCCAGAAAGTGCCGTTGTTGCTGTGATCTGTCCTTTGTTGCTGTT  
TTGATGTTAAAGAAATTTCAATTTTAAAGAAATCTTCGAAGGTGGGTTTTCATTTCTCAGTCACCAAGAT  
GAATAATTATGCTTAATAATAAGATTTTATTAAGACTTCTTTCAGAGTATGAAAGTACAAAAAGCTAGTTTACA  
GTGGATTTAGAATATATTTATGTTGATGTCAACAGCTGAGCACCCTAGCATGTCAGATGTCTCAAGGCACTTAGGAA  
GTAAATGGTGCTGTAGATATGTGCAAGGTAGCATGATGAGCAACTTGAGTTTGGTGGCCACTGAGAAGCAGGGG  
GGTTGGTGGGAGGAGGAAGAAAGGAAGAATTAGGTTTGAATTGCTTTTTTAAAAAAAAGAAAAGAAAAGAC  
AGCATCTCACTATGTTGCCAAGGCTCATCTTGAGAGCAGCGGGTGGGTGGGAGGAGGAAGAAAGGAAGAAT  
TAGGTTGAATTGCTTTTTTAAAAAAA

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**FIGURE 353**

MGRKVHNSQSQFAEHSRSPRRTGRDCKPVRAPSMALGVSQLAGRSRCLCSESQGGYERFSSEYPEFCSTKALAA  
IPPPVPPSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAYHAARRDMLDALGITALLNVSSDCPNHFEGHYQ  
YKCIPVEDNHHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKRVLEEAFEFVKQRRSI  
ISPNSFSGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQFVFSFPVSVGVHSAPSSLPYLHSPITTS  
PSC

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**FIGURE 354**

CTGCCATTAGGACAAGCTGGATGATGATGGTTTGTAGCTCCAGGGGTTTCGTGTATAGGAGATGATGAATCTGC  
TTCATCCAGAATCACAATCTTAAAGGCGGGAACCTAGGCGACTGTGGGGACATCAGTGATCGTAAGTCTCCTGG  
GCCCGTTATTCTCAGATTAGGTGACGGAGCTAAGACTTCGAGACCATCTCGTCCTTTTTGTATCGCGGAAACCTG  
AGGAACGAGCCGGCGGCGGTGACCTGCACGAGAAGCCAGGCTAACTGGGTGAAGTACCATGCAAGCATTCTTAA  
AGGTACATCCATCAGTACTAAACCCCGCTGACCAAGGATCGAGGAGTAGCTGCCAGTGCGGGAAGTAGCGGAGA  
GAACAAGAAAGCCAAACCCGTTCCCTGGGTGGAAAAATATCGCCCAAATGTGTGGATGAAGTTGCTTTCCAGGA  
AGAAGTGGTTGCAGTGCTGAAAAAATCTTTAGAAGGAGCAGATCTTCCTAATCTCTTGTTTTACGGACCACCTGG  
AACTGGA AAAACATCCACTATTTTGGCAGCAGCTAGAGAACTCTTTGGGCCTGAACCTTTTCCGATTAAAGATTCT  
TGAGTTAAATGCATCTGATGAACGTGGAATACAAGTAGTTCGAGAGAAAGTGA AAAATTTTGCTCAATTAAGTGT  
GTCAGGAAGTCGCTCAGATGGGAAGCCGTGTCGCCCTTTTAAGATTGTGATTCTGGATGAAGCAGATTCTATGAC  
CTCAGCTGCTCAGGCAGCTTTAAGACGTACCATGGAGAAGGAGTCGAAAACCAACCCGATTCTGTCTTATCTGTAA  
CTATGTCAGTCGAATAATTGAACCCCTGACCTCTAGATGTTCAAAAATTCGCCCTTCAAGCCTCTGTCAGATAAAAT  
TCAACAGCAGCGATTACTAGACATTGCCAAGAAGGAAAATGTCAAAAATTAGTGATGAGGGAATAGCTTATCTTGT  
TAAAGTGTGAGAAGGAGACTTAAGAAAAGCCATTACATTTCTTCAAAGCGCTACTCGATTAAACAGGTGGAAAGGA  
GATCACAGAGAAAGTGATTACAGACATTGCTGGGGTAATACCAGCTGAGAAAATTGATGGAGTATTTGCTGCTG  
TCAGAGTGGCTCTTTTGACAAACTAGAAGCTGTGGTCAAGGATTTAATAGATGAGGGTCATGCAGCAACTCAGCT  
CGTCAATCAACTCCATGATGTGGTTGTAGAAAAAATCTTATCTGATAAACAGAAAGTCTATTATCAGAGAAAAACT  
TGCCCAAGTTGACAAATGCCTAGCAGATGGTGTCTGATGAACATTTGCAACTCATCAGCCTTTGTGCAACTGTGAT  
GCAGCAGTTATCTCAGAATTGTTAACGTGATATATCTGGATGGGGGTTTTGTAAATAATGAAGTTGTAATAAAA  
ATAAAATGACCAAAAGCACCG

**FIGURE 818**

MAGLNSLEAVKRKIQALQQQADEADRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ  
KLEEAKEAADESERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEEERAES  
ELKCGDLEEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLKLA  
QAKEENVGLHQTLDTLNEINCI

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FIGURE 819A

CGGCACCGCTCTAGGTGCGGGCCGCATGAATGGAGCGCGGGCGTAAGGCAAAGCCTGGCACCGCTCTGCGGGCC  
GCTATCTGCTCCCGAGCGTGAGTGCGGGTGTGGGGCGTGCCTGCGCGCTCAGAGGGGGCTCAAGCGGAGCG  
CGCCCGGCAGTTCGCGGGCGCTGGCTCTGAGGTTGGCGCGCGTCCCGCGCGCCGACGCGGGCGGTGGTTCGCGG  
GCTTCCCGCTCGACCGCGTGGGGCAGCGCTGGCGGGCGCCGGGACCCAAAGGGCGGAGGAAGGAGGGG  
GCCGGTCCCGGCACGCAGAGGAGCAGCCGACCATTGCCCGGAGACAACATGGCTCTTGATCCAACGGATCGCCC  
CGAGGCTTGCTCTACCTTCTCGGGGCGAGCGGGGCGGGCGCGCGCTTCGATCGCAGCGGGCTTCTGGCGGG  
AGGCGCGGATGCAGCGGGTTCCTCCGAGAACTGAGCAAGCTGAAGAGCTCTTGACCCAGCTTCGCGCGGAGG  
ACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCAACCTTGGCGCCAGTCACTACATGCACA  
TCTACGAGACGGACGGCTTACAGCTGGGCGTGTCTCTGCTCAAGAGCGGCACGTCATCCCGCTGCACGACCACC  
CGGGCATGCACGGCATGCTCAAGTGTCTGACGGACCGTGCCTCAGCTGCATGGACAAGCTAGACGCGGGCG  
GCGGGCAACGGCGCGGGCTTGGCGCCGAGCAGCAGTTTCGAGCGCGCTGCAGCCCGGAGCGAGAAGCGG  
TGGCGCGGGCGTGTGCGTTTCGCGGGCGAGTACACCGAGGGCCAGCGGGCTTGCATCTTCACACCGCACCGGG  
ACAACCTGCACAGATCGACCGCTGGAAGGCGCTTCCGCGCTTCTGGACATCTTGGCGGGCTTACGACCGG  
ACGATGGCCGGGACTGCCACTTATACCGGGTGTGGAGCCGGTCAGGCCAAGGAGGCTTCCAGCTCGGGCTGTG  
ACCTGCCCTCAGAGGGTGTGACTTCTGGAGACCCACAGCCGGTACTTCTTGGTGCAGGAGCAACCTTATCCAG  
TGCCCAAGGCTTTCCTTGGACCACTTGGCGCCAGGAGCGGTGGGCGGAAGACGTGCCCTACCTTACCACAAGG  
GCTGTGTCTCTACCCCTTAGCTGGGCGTTGGATCTACTGGAATGAGCAGCAGCGCTTCTCGGAGCGCTTGGG  
AAGCACGGGCGACTGGACAGCAGCGCGCGGACAGGTTATGGGGCGGGGTGGCGGGGAGGCTAGATTGTTTCC  
TGGTACTGTCACTGCCACTGGGGCTTTGATTGGAGGAATGGGCGAGGGACTACTGAAGCGCTTCCATCTCAA  
AGCCATAATGAAATATCTTCTCTCTTCCCACTTCTATACAAACTACTAAGTGGTTCCTTGGCTCCCACTCCCT  
ACCCCTTAGTTAAATAGGGTTTATTTCCACTCATGCCCTTATGCCCTTTTTTCTTATAGTTTTTAACTATTG  
ACTGTGCATGACCAGTGGTTGAATTGTTTTAGTTCAAGTCAATGGTAAAACTAGGTTTAAAGAGATGAGCT  
ACTGTTTTAAAGTGAGCTGGCTGCCATAATTAATCTTGTGAAAACTAAATGATTTTTTTCAGTTTGGGATCATT  
CTCACAACATACTATGCATGTAGGAGACAAGATTATTTCTTTCCTCCCTTGGCCAGTGGCCACATCTGGTT  
TACTCAGCGACATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGACATGGTCACTTAGAGCTTATCTCCC  
TATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTCATGTTGCAGATTACCTTTAATGCAAAAGCTGTATTATCC  
TCACATGACTTTTTTCTTGTCTTACTGTACCTTAAAAGGTGATAGAGTAATTCGTATTTTCTAACGGGAAGAT  
TCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACCTGAATGTAAACACCTCTAGCCAGTGTGTTGCAITCCCTAT  
ATTTATTTACTTCCAATATTTTACTGTAAAAAGTAGGGAGAAATATTATGTAGTTGTTTCAATCTTCTCAG  
GAACTTTAAATGTTCCCGACTCGGGTGATTTCCAGCTGTGTTGCTGGCAGTGTGTCTCAACCCTCTCCCTAAAAATG  
ACTGAGCCCTGGGTCTCATCTAATGTGGTTTTCTTAGGAAGAGATAGAAGGCACAGAAGATCACAGCTAGAGAAT  
TGAGAATTAACTATACCTAGCCACTTTAGGGCACCAAACTTGGGATTTAAACACTTCTCACTTCCCACTCCCA  
ACTCTGAAATGAAGCTTGTCTATCTGTGACTAGTTTTATTTTGTGCTTTTAAATAGTCCGAGCAGTCTTACCTT  
GTTTACACATGTATGACACCAATTTGCTTCAGGCCATGGAGCACTGTTTCTCCCTTTTTTACTATTATAGGATTC  
GTTTTTTTCAAGACTTTTAAATAAAGAAATTTAGAAATAAACACATTAAAAATTTGCCAGCTGTGCTGCTTAA  
GCCCTTGTGATTGACTTGCCCAAGTGGAATAGAGTTCTAATATCTATAATAAAGGGAGATTTGCTATTATTAGT  
GGAATGTTGACCCCGTATGTAGAGAAACAGTACGTGCCCTTTGGCTCTTTATGCACACAGAGACCCAGGGTGAGGG  
AGTATTTGTTCCAGTTTTTAAAGTAGTATAAAAAAGCAAACTCTGGTGAAGTGTATTAAGAGTAAAAACCAAAAC  
AAAACACAAAAAGATATCCACAGGACATGCCACTTTATTATAAAACCTTGACACAGGCATAGTACCAAGTATTTT  
CTGCATTTGTTGCTAAAAATGTTTTATTGTAGCTCCCACTTCTGGTGTAGTTTAAATGCTTTTGGGGCGAGTTG  
AAGCAGTTCTTCATGCCACTTAGTTTTGAAAAATAAATCTAGATGCAAAATGATTTTCTTAGAAAACTTCACAA  
AATAAAAGATCTTGTTTTTTTTCTCATAGCACAGTAATGAATGTGGTTATCAATACATACATTTTTTGATTATA  
TTGTAGCAAAAAGTTGATTAGCTTACCAAGATTATTAATAGCAATGTATGGTTTAAATCAACTAGTACATTA  
AAGCTACGAAAACCTCATCTGGCTGTAGGATAGTAATAAAGGAAGAATTAGACTTCATTATGAAAAAAGAAAT  
TTTAAAGTTTTCAATTACGAGCAATTTGGAAGAAAAACCTAAGGTGTTTTCAAAAGAGTAACTGAAATTTGTG  
CAGGCCAAAACGCAATATGATATCTCAGATTTAGTTCAATAAGAACAGTGAACATTTTGGTCTCAATAAAAT  
CTGAGTAAATTAGTGGTGAAGACAAAATATAACTTGTTTTAGTGAGCCACTGAGGAAGAAATATGCTTATTACAA  
AGACAAAATGTGGTCGAGAAATCTATTTGCACCTGTGTGCATAAAGTGTAGTCGTGACTGACTTGGTGTGTTGC

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**FIGURE 819B**

TATTGTGTTTCTATATACTCCGTCCAATATAGATAATGTTTTAATAACAACGTGGGATAAAAGTTATCTTCCCC  
TTGGAAAGACTAATGAGCACAATGATATTAATCACTTTTATGGTGAATAATAAATGCAATAATTGCCTCATGGGT  
GAGAAATTGCTGTCC

**FIGURE 820**

MPRDNMASLIQRIARQACLTFRGSGGGRGASDRDAASGAEPMPQPGFPENLSKLKSLLTQLRAEDLNIAPRKATL  
QPLPPNLPPTYMHYETDGFSLGVFLKSGTSIPLHDHPGMHMLKVLYGTIVRISCMDKLDAGGGQRPRALPPE  
QQFEPLQPREREAVRPGVLRSAEYTEASGPCILTPHRDNLHQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRV  
LEPVRPKEASSACDLPREVWLETPQADDFWCEGEPYGPVKVP



## FIGURE 821

GGGGGAGAGGGGGCTCAAGGCAGCGCGCGGCAGTTGCGGGCGCGTGGCTGCTGAGGTTGGCGGCGGTGCCGC  
GCGCCCGACGGGGCCGGTGGTTGCGGGGCCCTCCCGCTCGACCCGGGTGGGGGAGCCGTGGCGGCGCGCGGGGA  
CCGCAAGGGCGGAGGAAAGAGGGGGCCGGTCCCGGCACGCAGAGAGCAGCCGACCATGCCCGAGACAACAT  
GGCCTCGTTGATCCAACGGATCGCCCGCCAGGCTTGCCCTCACCTTCCGGGGCAGCTGGGGCGCGCGCGGCGCTTC  
CGATCGCGACGCGGCTTTGGCGCGGAGGCGCGGATGCGAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAG  
CCTCCTGACCCAGCTCCGCGCGGAGGACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCCCAA  
CCTGCGGCAGTCACCTACATGCACATCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCCTGCTCAAGAGCGG  
CACGTCACATCCCGCTGCACGACCACCCGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGGCGCATCAG  
CTGCTAGGACAAGCTAGACGCGGGCGGGCGGCAACGGCCGCGGGCCTTGGCGCCGAGCAGCAGTTCGAGCCGGC  
GCTGCAGCCCGGGAGCGAGAACCCGTGCGGCGGGCGTGCTGCGTTCCGCGGCCGAGTACACCGAGGCCAGCGG  
CCCCTGCATCTTCACCCGACCCGGGACAACCTGCACAGATCGACGCCGTGGAAGGGCCTGCCGCCCTTCCTGGA  
CATCCTGGCCCCGCCCTACGACCCGGACGATGGCCGGGACTGCCACTATTACCGGTGCTGGAGCCGTCAGGCC  
CAAGGAGGCTCCAGCTCGGCCGTGTGACCTGCCTCGAGAGTGTGGCTCCTGGAGACCCACAGGCCGATGACTT  
CTGGTGCAGGGAGAACCTATCCAGGTCCCAAGGTCTTCCCTTGAAGCCACTGGCGCCAGGAGCGGTGGGCCG  
AAGACGTGCCCTACCTACCACAAGGGCTGTGTCTTACCCCTAGCCTGGGCGTGGATCTACTGGAATGAGCA  
GCAGCCGCTTCTCGGCAGCCTTGGGAAGCAGGGCGACTGGACAGCAGCCCGCGGCACGGTTATGGGGCGGG  
GTGGGCGGGGAGGCTAGATTGTTTCTGTGACTGTCACTGCCACTGGGCTTGTATTGGAGGAATGGGGCAGGG  
GACTATCTGAAGCGCTTCCATCTCAAGCCATAATGAAAATATCTTCTCTCTTCCCATCTATACAAAATACT  
AAGTGGTTTTCTTGCTCCCACCTCCCTACCCCTTAGTTAAATAGGGTTATTTTCCACTCATGCCCTTATGCCCTT  
TTTTCTTATAGTTTTTAACCTATTGACTGTGCATGACCCAGTGGTTGAATTGTTTTAGTTCAGTCATTGGT  
AAAACTAGGTTTAAAGGAGATGAGCTACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCCTGTGAAAACAT  
ATGATTTTTTCAGTTTGGGATCATCTTCACAACATAACTATGCATGTAGAGACAAAGATTATTTTCTTCTCTC  
CCTTTGCCAGTAGCCACATCTGGTTTACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGA  
CATGGTCACTTAGAGCTTATCTTCCCTATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTCATGTTGCAGATTCA  
CCTTTAATGCAAGACTGTATTATCTTCACATGACTTTTTTCTGTCTTACTGTACCTTAAAGGTGATAGAGT  
AATTCGTATTTTTCAACGGGAAGATTCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACTGAATGTAAACAC  
TCCTAGCCAGTTGTTGCATTCCCTATATTTATTTACTTCCAATATTTTACTGTAAAGTAGGGAGAAATATTATG  
TTGATAGTTGTTTCATATTCTCTCAGGAACCTTAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGT  
GTTGTCTCAACCTCTCCCTAAAGTACTGAGCCCTGGGTTCACTTAATGTGGTTTTCTTTAGGAAGAGATAGAA  
GGCACAGAAGATCACAGCTAGAGAATTGAGAATTAATACTACTAGCCATTTTAGGGCACCAAACTTGGGAT  
TAAACACTTCCCTACTTCCCACTCCCACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTGTGCT  
TTTAATAGTCCGACAGCTCTTACCTTGTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTT  
CTCCCTTTTTTACTATTTATAGGATCCGTTTTTTCACAAGACTTTTAATAAAAGAAATTTGAGAAATAAACAC  
ATTAATAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 822**

MQPGFPENLSKLKSLLTQLRAEDLNIAPRKATLQPLPPNLPPVTYMHIIYETDGFSLGVFLLKSGTSIPLHDHPGM  
HGMLKVLYGTVRISCMDKLDAGGGQRPRALPPEQQFEPPLQPREREAVRPGVLRRAEYTEASGPCILTPHRDNL  
HQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRVLEPVRPKEASSACDLPREVWLETPQADDFWCEGEYPYGP  
K  
VFP

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**FIGURE 823**

ATGCCCCTAGGTCTCCTGTGGCTGGGCCTAGCCCTGTTGGGGGCTCTGCATGCCAGGCCCCAGGACTCCACCTCA  
GACCTGATCCCAGCCCCACCTCTGAGCAAGGTCCCTCTGCAGCAGAACTTCCAGGACAACCAATTCAGGGGAAG  
TGGTATGTGGTAGGCCTGGCAGGGAATGCAATTCTCAGAGAAGACAAAGACCCGCAAAAGATGTATGCCACCATC  
TATGAGCTGAAAGAAGACAAGAGCTACAAATGTCACCTCCGTCTGTTTAGGAAAAAGAAGTGTGACTACTGGATC  
AGGACTTTTGTTCAGGTTGCCAGCCCCGGCGAGTTCACGCTGGGCAACATTAAGAGTTACCTTGGATTAAACGAGT  
TACCTCGTCCGAGTGGTGAGCACCAACTACAACCAGCATGCTATGGTGTCTTCAAGAAAGTTTCTCAAAACAGG  
GAGTACTTCAAGATCACCTCTACGGGAGAACCAAGGAGCTGACTTCGGAACATAAAGGAGAAGTTCATCCGCTTC  
TCCAAATATCTGGGCCTCCCTGAAAACACATCGTCTTCCCTGTCCCAATCGACCAGTGTATCGACGGCTTGA

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**FIGURE 824**

MPLGLLWLGLALLGALHAQAQDSTSDLIIPAPPLSKVPLQQNFQDNQFQGKWYVVGLAGNAILREDKDPQKMYATI  
YELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGFTLGNIKSYPLTSLYLRVVSTNYNQHAMVFFKKVSQNR  
EYFKITLYGRTELKTELKENFIRFSKYLGLPENHIVFPVPIDQCIDG

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FIGURE 825

CACCGTCCGCAGCCCGAGCGCCCCGGAGCGCAGGCGCGCGCCGCGCAGAGACCGCGCGGTGCGACTAGGCGCGC  
CCAGCGCAGCGTGGCGGACCGCCCCAGGCGCGCAGTGTCTTGAGACCCCGCAGGCCCTCCGCTCTCTGTCTCTCG  
GCCCGCTCCCGAGGCGCGCGATGAGTCTCTGAGCGCAGCAGCGCGCGCCACCCCGCGCGCCGGGCGCGCT  
GCACCTTGGCGGAGAACTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAGAGGAGGAGGAGG  
GCAGCGGCCACAGCACCGGGGAGGACTCGGCCCTTCAAGAGCCCGACTCGCCGCTGCCGCCGAGCGGAGCCCA  
CGGAGCCCGGGCCGAGCGCGCGCTCGCCCGGGCGCGCCCCCGCAGCCCGCGGAGCTGGAGGAGGACCTGT  
TGCTGCCCGGCGCTGCCCGGGCGGACGAGGCGGGCGGTGGGCGGAGGCGCACTCGTGGGAGGAGGAGGCT  
TCGGCTCTCTCGTCGCGGTCAAGTCGCGCGGCGGCCCTACTTCTCGGGTAGCTCTTCTCGCCGGTGCCTGCG  
GCGGCCCGAGGATGCGTCGCCCGGGGTTGCGGGGCGCGCGGGCGGGCGAAGCCGCGCTCGCCCGCGCGCG  
ACCAACCGGCGACCCCGCCGACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACGCGCCAAGAT  
TGCTCTCCAAAGCTCGGGGAATTGATTCACAGCTCTGTAAACTCCGGGGTAGTCTCTCTTCATGGATACAGAAA  
AATCAGGAAAAAGGGAATTGATGTGCGACAGACTCCCAAGTGAATATTAATCCTTTTACTCCGGATCTTTGT  
TGCTTCATTCTCAGGACAGTGTCTGCTGATAGAAAGAGAACGTATTGGAATGATTCCTGTGGTGAAGACATGGAAG  
CCAGTGATTATGAGCTTGAAGATGAACAGACCTGTGAAGAGAAATACAATTAAGGAAAGCAATATGAAGTCCC  
GGTATACACAGAAATTTACAGCTAGAGAGAAATCGGCTCTGGAGAATTTGGTCTGTATTTAAGTGTGTGAAGA  
GGCTGGATGGATGCATTTATGCCATTAAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTT  
TGAGAGAAGTATATGCTCATGAGTGCTTGGACAGCATTTCTCATGTAGTTCGATATTTCTCGCGTGGGCGAGAAG  
ATGATCATATGCTTATACAGAAATGAATATTGTAATGGTGGAAAGTTTAGCTGATGCTATAAGTGAAAACTACAGAA  
TCATGAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATT  
CAATGTCTTTGTTGCATGGATATAAAACCTAGTAATATTTTCATATCTCGAAGCTCAATCCCAAAATGCTGCCT  
CTGAAGAAGGAGACGAAGATGATTTGGGCATCCAACAAAGTTATGTTTAAAAATAGGTGATCTTGGGATGTAAACAA  
GGATCTCCAGTCCACAAGTTGAGGAGGGCGATAGTCGTTTCTTGCAAAATGAAGTTTACAGGAGAAATATACCC  
ATCTACCAAAAAGCAGATATTTTGCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAA  
ATGGAGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTCCCAAGAATTTACAG  
AGTTGCTAAAAGTTATGATTCATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCAATTCAGTAT  
TGCTGTCCGCTTCTAGAAAGAGTGCGAGAACAAATACGAATAGAATTGAATGCCGAAAAAGTTCAAAAACTACTTT  
TACAAAAAGAACTCAAGAAAGCAGCAGATGGCAAAAGCTGCAAGCTGAGGAAAAGAGCACTCTTCACTGACCGGAATGG  
CCACTAGGTCCACCCACCTAGCAATAATAGAACATCTCGACTTATTGGAAAGAAAAATGAACCGCTCTGTCAAGCTTA  
CTATATCTGAGCAGACCTCTTCCACCTCCCCCTGAACACTGTGACAAAGAGGAAGCTAGGTTGAAATCAGCTGAT  
AGAATCCAGTTTGCAATTACTTTCTCGATTGGTGTGAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAG  
TTGAAAGCTGATATTTGATGATTGCTATGTCAAGGCTTTCATCTAATCTTACCAGCTGTGCTCTGTAGGATGTGT  
CACTGTGATGATTTACACAGCCCTTCCAGGGTTAAACCACTGTGGTGTGCTGCTATAGTTTGGCTTGTGAT  
TGTAATAAAAGGTGCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGGCTTTATTACAGACATACCCCTCCCT  
TTGAAAGGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGTCATCTTATATTTCTTT  
TTTTTTTAAATGTGAATAGACTGTATATCCCACTGGGAGCACTTTTGAGGACTTGATGCAATGAACCATGGATGAT  
GATTCGTGGAGGTATTCCTTGTGAATTTGCTGCTATTTTAGTTTGTCTTGTGTAAACTTGTAGGATTAAG  
CAATCATTGTTGTTAATAGGTCTTCTTTTGAACAAATATGTGAAATGTATAGCTGCTTTTGTGGAAGCAGC  
TATTTGCCCTTTTTTTTTCTTTTGAACCTTGAAGCTAGTGACTTTGGAAGAAATGACCCCTTTCCCTCTTTGGAA  
TGCTGTATTAATGTAGTATAATAATACTGGTTTGTAACTGTTCTGTGTAATGTCCTTCCCGGACTCTTTTAA  
ATGTCCTCCCTAAGTTTTATACTGATTGTATTATTAGTCTGTTTTAAATGTTTTGCCCGGTTTTTCTCTTCA  
ATATTTGTGATATAAAACCGATCTTCGTGATCTGTACATAGCTGTTTGAAGATGCCAGAAATGACTCTTGACATTC  
CAAGTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGCTAACAGATGTTGAAAAA  
AATGTGCTGTTTTTCTCATTAATTTTGGCTTAAAAACATGTTTGCACTGTGCTTTGACTTGTGTTTTATTAACATTG  
ATTGGCATTTAAAGACTCACTCTGAGCTT

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**FIGURE 826**

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPERSPTIEGPER  
RRSPGPAPGSPGELEEDLLLPACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSVRCGGPGDAS  
PRGCGARRAGEGRRSPRPDHPGTPPHKTFRKLRFLDTPHTPKSLLSKARGIDSSSVKLRGSSSLFMDTEKSGKREF  
DVRQTPQVNINPFTPDSLLHSSGQCRRRKRTYWNDS CGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH  
ELEKIGSGEFGSVFKCVKRLDGCIIYAIKRSKKPLAGSVDEQNALREVYAHAVLGQHSVVVRYFSAWAEDDHMLIQ  
NEYCNGGLADAI SENYRIMSYFKEAELKDLLQVGRGLRYIHSMSLVHMDIKPSNIFISRTSIPNAASEEGDED  
DWA SNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVVCAAGAEPLPRNGDQWHE  
IRQGRLPRIPOVLSQEFTELLKVMIHDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK  
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKMMNRSVSLTIY

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FIGURE 827A

TTGCTGCGTCAACTGTGTTCCTTTGGCCTGGCTGAGTTTGATACTGTGGGGATTAGTTAGGCGCTGGCCCCGA  
GGATATCCAGCGGTGGTACTTCGGAGACACCTGTCTGCATCTGACTGAGCGGCTCTCTGGCCTCGCGCTGCA  
CATTTCTCTCTCGGCGGGCGGCGACCTCAGTAGCGTTTCGCCGAACATGGCGACAGGAGCAGGAGGAGGAT  
CGCGACTCCCGTTCTATTCACTCCCTGGTGCATCTGTCCGCGCGGAGCTCTCTCGGAAGTCTTGAGCAGAGGCG  
TGACCGGCGGAGCGCGCCCTTGCCCCAGGACCGGGGCTCTCTCGTGTGTGACGGGCGACCCGCGGAGCTCGCGC  
TGTGGGCGCGGCGGGATGTCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGAGCGACTGCC  
TGACGCCGAGCCCATCAAGGTATACAGGATTCAGGACAGGTTAGTCTGAATGATTTCCACATCAGATGGTGGTGCACTGGG  
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGCCCCGAGATAGCCTGGCATTGGCGAGGCCCCAAGAGCAGTGATG  
TGTACGTGTCTTACGACTATGGAATAATCATTAAGAAAAATTTTCAGACAGTTTAAACTTTGGCTTGGGAAATAGGA  
GTGAAGCTGTATTGCGCCAGTTTATCCACAGCCCTGCGGACACAAAGCGGTACATCTTTGACAGACGCTTATGCC  
AGTACCTCTGGATCAGCTTTGACTTTGCAACACTCTTCAAGGCTTTTCCATCCCACTTCGGGCGAGCTGATCTCC  
TCTACACAGTAAGGCTTCAACCTTCTCTTGGGCTTTGACAGGTCACCCCAACAGCAGCTGTGGAAGTCAG  
ATGACTTTGGCCAGACCTGGATCATGATTCAGGAACATGTCAAGTCTCTTTCTTGGGGAATTGATCCCTATGACA  
AACCATAATACCATCTACATTGAACGACACGAACCTCTGGCTACTCCACTGTCTTCGGAAGTACAGATCTTCC  
AGTCCCGGAAAAACAGGAAGTGATCTTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAGTACATGTTTGTCTA  
CAAAGTGGTGCTCATCTCTTGGGCGAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGCTCTCTTTGGCCGGAAGCCCA  
TGAGACAGCCAGCTTGTGACAGACATCCTATTAATGAATATTACATCGCAGATGCCTCGAGGACCGAGGTGT  
TTGTGTGTGTGACCCACAGTAAACCCGACCAATTTATACATCTCAGAGGCGAGGGGCTGAAGTTCTTCCCTGT  
CCTTGAGAGAGCTGTCTATTACAGCCAGGAGGGGCGGCGAGTGACACCTTGGTGAGGTATTTTGCARAATGAAC  
CATTTGCTGACTTCCACCGAGTGGAGGATTGCAAGGAGTCTACATTTGCTACTGTATTAAATGGTTCTATGAATG  
AGGAGAACATGAGATCGGTATCATCCTTTGACAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG  
GATATGGAGAGAAAAATCAATTGTGAGCTTCCAGGGCTGTTCCCTTCATCTGGCTCAGGCGCTCAGTCAGCTCC  
TCAACTCTCAGCTCCGGAGATGCCATCTGTCCAAGGAGTGGCTCCAGGCTCATCATCGCCACTGGCTCAG  
TGGGAAGAAGACTTGGCTAGCAAGACAAACGCTGTACATCTCAGCAGTGTGGAGCGGCGAGGAGGCACTTC  
CTGGAGCTCACTACTACACATGGGGAGACACCGCGGAATCATCACGGCCATTGCCAGGGGCATGGAACCAACG  
AGCTAAAAATACAGTACCAATGAAGGGGAGACCTGGAARACATTATCTTCTCTGAGAAGCCAGTGTTTGTGTATG  
GCCCTCTCACAGAACCTGGGGAGAAGAGCACTGTCTTCAACATCTTGGCTCGAACAAGAGAATGTCCACAGCT  
GGCTGATCTCCAGGTCAATGCCAGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACACAGCTGTGGTCAC  
CATCTGATGAGCGGGGGAATGAGTGTTTGTGGGACACAAGACTGTTTCAAACGGCGGACCCCCATGCTCCCAT  
GCTTCAATGGAGAGGACTTTGACAGGCGGTGGTCTGTCCAACCTGCTCTGACCCGGGAGGACTATGAGTGTG  
ACTTCGGTTTCAAGATGAGTGAAGATTGTCTATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCA  
ATCTCCCTCTGTGCCTTTGCCCTGTGGGTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTCTTGGGGACA  
CTTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCTGTCCCTGGCAGAGAGAACAGAT  
TCATTCTGTATGCTGTGAGGAATTCATCTACCGCTATGACCTGGCCTCGGGAGCGCCAGGAGCAGTGTGCCCTCA  
CGGGCTACGGGACGACGTGGCCCTGGACTTTGACTATGAGCAAACTGTTTGTATTGGTTCGACCTCGGCTTGG  
ACGTATCTCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATCTGGCTGGAGACAGTAG  
AAGCTTTGGCTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA  
ATCAGATGGCGACTTCCGACTACAATCGTCAATTCCTCTGTGCTTGATCGTCCAGGGCTCTGGCTCTGCTGCG  
CCCAAGAGGGGGTGATGTTCTGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT  
CTGCTGCCATCACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGACGACCAAGTGGATTACT  
GGACGATGCCTTACCTGAGTGATAGAGCGGATCAGTTTCAGTGGCCAGCAGCGCTCTGTCAATTTCGCAACCC  
TCCCGCACCCCTATGCCATTGCTGCTTTAAGAATGAAATCTACTGGGATGAGTGGTCACAGCTCAGCATATCC  
GAGCTTCCAAATACAGTGGGTGTCAGATGGAGATTCTGGCAACCAAGCTACGCGGCTCATGGACATGAAGATT  
TCTACAAGGGGAAGAACACTGGAAGCAATGCCTGTGTGCCAGGCCATGCAGCTGTGTGCTTCCCAAGGCCA  
ACACAGCTAGAAGTGTGAGGTTCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGGACT  
GCCCTCAGGCTTATCAGCTCAAGAAATACCTGTGTCAAGAAGAGAACACCTGTCTTCGCAACCAAGTATCGCT  
GCAGCAACGGGAACGTGATCAACAGCATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA  
GAAACTGCCCTACCAACATCTGTGACCTGGACACCCAGTTTCGTGTGCCAGGAGTCTGGGACTTGTATCCCACTGT

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FIGURE 827B

CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTATGAAAAGTCATTGTGAAATGCACCAGTGCCGGA  
GTGACGAGTACAACGTGCAAGTTCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGGACAAACAGTGCAGGG  
ACTGGTCTGATGAAGCCAACTGTACGCCCATCTATCACACCTGTGAGGGCTCCAACCTCCAGTGCAGCAACCGGCG  
ACTGCATCCCCAGCGGTGGGCTGTGACGGGGATACGGACTGCCAGGATGCTCCGATGAGATGTAAGTCAACT  
GTGAGAAGAAGTGCAATGAGATTCCGCTGCCAAACGGGCACTGCATCCCATCCAGCAAAACATTGTGATGGTCTGCG  
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTCTGTACGCATCTCATGCACTTGTGTGTAAGA  
ACGCCACAGCTGGCTGTCTCCACTGGTCTGTGACGGAATCATCCAGTGCCGCGAGCGTCCGATCCGAGTATG  
CGCGGTTTGCAGGATGCTCCCAAGATCCTGAGTTCACAAAGGTATGTGATGAGTTCGGTTTCCAGTGTGCAAGT  
GAGTGTGCATCAGTTTGAATTTGGAAGTGCAGCGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACTGCG  
AAAACCCCAAGAGCCCAACGTGCTCCGCTACTTCCAGTTTCGGTGTGAGAAATGGCCACTGCATCCCAACA  
GATGGAAATGTGACAGGGAGAAGCACTGTGGGACTGGTCTGATGAGAAGGATTTGGAGATTACATATTTCTC  
CCTTCTCGACTCCTGGGCCCCACAGTGTCTGCCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGTGAGCA  
CTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCCTGCCCTTGTGCAAACTGCA  
CTGCTGCTCCACTCCCACCAACTTGGGCGATGTGACCGATTGAGTTTCAATGCCAACCCGAAGACGTGTA  
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACAC  
GCACCTTGACTTGCATGAGCAGGGAGTTCCAGTGCAGGAGCGGGAGGCTGCAATTGTGCTCTCGGAGCGCTGGG  
ACGGCTTCTTGAAGTGTCTGCGACGAGAGCGATGAAAAGGCCCTGCAGTGTGAGTTGACTGTGTACAAAGTACAGA  
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAAATGCCCTTGCA  
CTTGTGTATATATATGTCTACTACAGGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGAGCCACAGCAATAAGA  
CAAACTCTGATTAAAGTCTTGAACACAGATACCAAGTATCAGGTTAAAGTACAGGTTCAAGTGTCTCAGCAAGG  
CACACAACCAATGACTTTGTGACCTGAGGACCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT  
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCTCCCATCCACACCAATGGCCTCATCCGTG  
AGTACATTTAGTAATACAGCAGGAGGTGGTTCCAAGATGTGGGCTCCAGAGGCTGCTAGTAACTTTACAGAAA  
TCAAGAACTTTTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGCTGTGGGAATAGGAACTGGA  
GCGATTCTAAATCCATTACCACTAAAAGGAAAAGTGATCCACCAACAGATATCCACATTGACAGCTATGGTG  
AAAATTAATCTAAGCTTACCCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG  
CATTGTGACCCACAAGCAAGAGAGAGGAGAACCTTTGAACCTCCGAGGAAGCATATTGTCAACAAAGTTGGCAATC  
TGACAGCTCATACATCCTATGAGATTTCTGCTGTGGCCAAAGACTGACTTGGGGGATAGCCCTTGGCATTTGAGC  
ATGTTATGACCAGAGGGGTTTCGCCACCTGCACCTAGCCTCAAGGCCAAAGCCTACACCACTGAGTGTGAAT  
GTACCTGGACCGCCGCCGGAATGTGGTTTATGGTATTTCTATGCCACGCTCTTTCTTGACCTCTATGCGAACC  
CGAAGAGCTTGACTACTTTCATCCCAACAAGACGGTCAATTGTGAGTAAGGATGAGCAGTATTGTGTTCTGCTCC  
GTGTAGTGGTACCTTACCAGGGCACTCTCTGACTACGTTGTAGTGAAGATGATCCCGACAGCAGGCTTCCAC  
CCCGTCACTGTCATGTGGTTTCATACGGGCAAAACCTCCGTGGTTCATCAAGTGGGAATCACCGTATGACTCTCTG  
ACAGGAGCTTGTGTATGCAATTGCGATCAAGATCTCATAGAAGAGCTGACAGGAGTCAAGATGAAAATCCCT  
GTAACGACATCTGGAAATACACCTTTAAACAAGTTGGAGCCTGGCGGGAATACCCACATCATTTGCTCAACTGGGA  
ACATGAGCAAGAGATTCCAGCATAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATACAG  
AAAATGATCATGTTCTCTGTGTTTGGAAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAATGAAAGCAGGGGCTATG  
AGATACACATGTTGTATGTGCGCATGAATATCACAGTTTACCTTGGGAATCAACTGACAACTTCTTAAAGTAT  
CCAACCTGAAGATGGGTCTATAATACACGTTTACCGTCCAAGCAAGATGCCCTTTTGGCAACAGATCTGTGGGG  
AGCCTGCCATCTCTGTGTACAGTGAAGTGGGGTCTGGTGCAGATGCACTGCAACGCAAGCTGCCAGATCTACGG  
ATGTTGCTGCTGTGGTGGTGGCCATCTTATCTGATACCTGCTGAGCCTGGGGGTGGGGTTTGGCATCTGTACA  
CGAAGCACCGGAGGCTGCAGAGCAGCTTACCGCTTCGCGCAACAGCCACTACAGCTCCAGGCTGGGGTGGCGCA  
CTTCTCTCTCTGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGATAACTGGATTTCAGATGACGCTCC  
CCATGGTGATAGCTTGAAGAGCTTTCCCTACTAGAAACCAATGGGTAAATATTTTATTTGATAAAGATAGTT  
GATGGTTATTTTAAAGAGTGACATTTGTAGTTGCAATATGTTATTTTATGGGCAACCAACNNNNNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNNNNGGAATGAATAAACTTTGTAGTAATCAACTGAGCTCAAAACAGGTTGATTTTA  
GTAACCAATTGCTTTGATTTTGACATTAATGTAGTCTTACAGGGCTGTGCTTGTGCTGGGCATGCTTTTACGCTGT  
GAGATAATTTGCGTTTCAGTAAATTTGGCCAACTTTTATATTTTCTAAGACACAGAAATGTATTTAATAAAACCTT



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FIGURE 827C

CGAGAGAGTGATGGGTGGAAACCCCTTCTCCTTGAAAGTGTGACAGATATTCATTTTGTGGATATAGTTTAT  
AGGAAAGTGTGGATGTATTATGCGCGGAAGGTTCTTTATGTTATTTTGTAAATTTATTGGGACTCTGTGTAAAG  
GCCAGGCTTTAGTGGTCATTAGACACCACATGTGTTATGAGCCCTTACCCATAGGCTTGGGGTGGGAAGAGA  
GCATATTTTGGCCATTCGGGAAGCAATCCATTTTATTCACCTTGTGTGTCATGTAAGGCTTTGGCAGGAGA  
GAGCAGCTGAGTCATTGCTGGAGTTTCAGTTCAACAGAGCTGCAGCTTGGGAAGCCCTGTAAAGCCACAGCTTCTCT  
TCTTATATTAATTTGATGGAATTTTACTGTATGTGCCCTCTGTACAAGATGTAGCTTTGAGAGTACAAAATGATAA  
CAGTGCCTTTATTACACACTGGTTTTCATTGTCTATTGCAAAAACCTACCCTGTGTGGGGGAGAGTTCTAGATCTG  
TGCCATGATCCATACACTACCTGGCTAATAGAGTACATAATTTTCCATTTTCCATTTTGTTTTACTTACTACTGA  
AGGATCTCAGATGTAAAAATATGATTATGGTTTGAGATGGCCACTTATTGTCCTTAAAAATCCATACTGATATAT  
GCAGTCATTTGAATTGGACAGTGCCTTCTCTTTTTTTTCTCCTCTCTCTCCATCTCCCTACCCATGCCCA  
CCCAATCTAAAGAGACAGTGTCTGTACATCTCTCATAGAGATAGAGAAGATCTAAAAAGTTGAGACTACTCAATCCA  
GTTAAACAACAGCAGGAGCACTAGAGTTTGTTCATTTATCTCTCTGTAAACAAGCTGTGCTTTTTTCTTCTGCTG  
CTTTAAAATGCCACCCGTGATTTCAACACATGGCCACTTGATCTTATGTAGATCCATCTGCGGCTGATGCAAG  
CCCTTATTATTAGGCTTAGTGTGTGGGCACCAATGTCGAGCATCGTTGTGAGTCTGTGCTGTATGATTTCTACTGA  
AGAATTTCTTTTCAGCCAGAAGCAGTGAAGGCTTGGGAATATTTCCAAAGTCATGCTCTGAATATGTGTCCTTGA  
CGTGCAAGCTTTGTAAAAACCCCATCCCGCTTAGGTGCGAGGACATCACCTCTCAAGTGTTTAGTTTCTTTTA  
ACCACAAGTATCATTTCTTTGGGTGATATATAGTTTCATTCTACTTAGGAGTGTGTTAGAAAAACAAAGAGGCC  
AATTAATTTTTTTAGTTTTTGAATTTTTTATTTATATGTATACTTAGATGAGTATTTTAAAGCTGTGACCTTTAG  
TTGGCATACGGGTAGGACTGATTTTTCATGTAAACAACCTGGGTGATGATAAGCCTTCTTCTAGCGTATTTTCT  
CTTCTTTCTGTCACCTTCTCAAGTTTTTTTTTAAAGACTGGAATTTTTTTGGCTTTATCTGTCTTACCCT  
AGAGATTTGTCTCAAACTCTAAGCCCTACCACTCCCTTTAATAAGCTCTTTAAATAGTTGAATCAATTAACAAC  
CTGGTGGGAGGCAAGTCATTTAATGAACCACTAGGAAGTGTATTTTCTTTTCTTTTCTGCCAATTTTTGGTG  
CATTTGTGAAAAGCTGATATAAAGAGCTCTGAGATGTTATTTTCAGTATATCCATAGGCAAGCCTTTTACAGAG  
CATATGTTCCAGTTGGGCAGCTTGGAGATATTTCCGAGCATCCGGTCTAGCTACAGGCTCCCAAGCTTAGT  
GCACAGTACTGTAGACTGGCCATCACCCCTCTCCTTGGAAAATGCCACTGTGCTGTTTGAaaaaAGCAGCCTTT  
TAGGGCTAGAGTATTTTATATAACAGAAGAGCTAAGTTCTCTGAAGACTAAGCTAGATAGCTGCAGCTATATGTA  
AATTGTATATTTTTATGAACTTTTGAAGCACACACTCCTGTTTCCCTCTGTGTAGCTTTTGTGGGATTTTCATGTA  
TATATGCTGTCTGAAGAATCCAGAGGTTGGAGTGCCAAATAGAAAATGAAAACAAATGCCTGTACTACAGGCAG  
CCTCTGAAGGTGACCACATACCTGTCTTCACTGTGACCAATCGGAGTCCCTGCTTGTCTGTGAAGAAGGGGCTTT  
TGTAACCTTGTGGAGATGCCCTCAGAAGTTACACTGTGAGGAAAAAGGTTTTATCTCTCTCTGGCATACAT  
TAGAATGTGAGATGCTGCATCCATGTGGACCAAGTGGGCTCTAAAAAATGGTGGGCAAGGGGTTGCTTTATG  
AGTTTTCTCTGAAACCGATTTTACTCTGGATGTAATTGAATGCCCTTGAGCTTTATGAGATACAGGTCACAT  
GGATAAAATGTTAGAGAGTGGAGTTCTACAGAGGATTCAGGAAGAGGCCATGTCTGTGCACTCTAGTTCAGAG  
CAGGTGAGAAGCTCCAGAACTACTGGCTACCTTGACAAGCTGGGTAAATAGTATATCATTTCTGGGTAACTGGTTG  
AAACTGTACTTTTGGACAAGTAATCTCTGGGGTCTGTCTTTGGTAGCATACCAGGATATTTGGGTGGGACA  
GACAGAAGACACACAGCTGCCCTGTCTCTCTGCCCATCATGTTTGGCCCATAGATGAAGCTGTACTCAGCAAT  
TAGGGGAATGTAAACCTTCTCAGAACTGGCCATTTTCAGGGGAAGCTTGGGAGAGCAATAGTATGGTGAGCCCTT  
TAGAGATGAGCCCTCTACTCTTTGGCGAATGCTGCTTACAGTGTGCTTACCAAGGTGCTACATCTAGTAAAG  
ATTATATTTCCAGTACATTCCTTAGGGCAGAAACACCATCCTATCAGGTTTGGTCACTGCCCTTCTCATGAAGG  
GAGTCAATGGGAATTCCTGAAAAATTTTCTCTCTCTGTCAGACAGTTGGATGAGTCCCTTAGAGAAGGCATCCAGA  
GACATAACTAACTGAATCAATCCCATATTTGATTTAGGAATGACTCTAAACCTCTGTGCGAATCTTGTGTT  
GGGATGTATCTTGACATTCCTGTTGTGTTATTTTCTTAACTGGAGTGTGTGCTGCCCTTTCAGGTACAAATTTT  
GTGTAATAAAGCCAGTGCAATTAAGTTTATATAGACTACTTTCTATGCAAGACTGAGATATGGAATAGATAGGAA  
GAGATGTACTGTCTGGGTGATCTGGACAGTAAGTGTGTTTTCAGATGGAGTACAGCAGCCGAAAAATGGGTGAGG  
GAGGATGGGTGTATGTATGTTTCTGCCCACTAATTTGAGCAGCCATATTAAGTAATTAATCTGTCAGACCAAG  
TAATAACCAAGAATGGTATGAGTTTCAATGTGTAATAGCTCAAAATGGAATGCAATGCTGAGTGAGGACAT  
TATCCTCAAAATTTCTATGTCACTTCTCATTTAAAGACTCTTGTATGAACATTTAGAAACTTTAGGCAAAATCA  
AAAGTATTTCTGGGCAAAATAAAGGCTATTTCTACTCTTATTAAAGTGAAACACTGTATACTTGTCTCTCCAA

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**FIGURE 827D**

AGCGAAATTAAGTATTTATAATTTCAATTGCCTCGATAAGTTTCCAAGTCACTGAAATCTGCTGAAGTTTTACT  
GTATTGTTGCACAACCTTTAAGATAATTTTGTCTCAATGTCAACTTTTTTCACTGAATAAAAAATTTAACTGGGTC  
AAGAAAACACCTCTTTGAAAATCCACTGTCTCTGTGTCTCGAGCTGTTCTTTAGAGCGCAATAAAGATGGCTG  
ACGCAGTCTCCAAACCC

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FIGURE 828

AASTVFPLAWLSLILWGFSLGAGPRISQRWYFGDTCCLHLTEPALLASRCTFSPGGGATCSSVRPNMATRSSRES  
RLPFLFTLVALLEPPGALCEVMTQRLHGGSAPLFPQDRGLVVQGDPRFELRLWARGDARGASRADEKPLRRKRSAAAL  
QPEPIKYGQVGSVNDSHNQMVVHAGEKSNVIVALARDSLALARPKSSDVVYSYDYGKSFKKISDKLNFGLGNRS  
EAVIAQFYHSPADNKRYIFADAYAQYLWITDFCNTLQGFSPFRAADLLLSKASNLLLGDRSHPNKQLWKSD  
DFGQTWIMIQEHVKSFSWGDIDPYDKPNTIYIERHEP SGYSTVFRSTDFQFSRENQEVILEEVRDFQLRDKYMFAT  
KVVHLLGSEQQSSVQLWVSFGRKPMRAAQVTRHPINEYYYIADASEDQVFVCSHNNRTNLYISEAEGKLFKLSLS  
LENVLYSPGGAGSDTLVRYFANEPFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTWEFLQAPAFGTG  
YGEKINCELSQGCSSLHLAQLRSLQLNLQLRRMPILSKESAPGLIATGVSVGKNLASKTNVYISSAGARWREALP  
GPHYYTWGDHGGIIITAI AQOMETNELKYSTNEGETWKTFFISEKPVFVYGLLTEPGEKSTVFTIFGSKENHVSHW  
LILQVNATDALGVPCTENDYKLSWSPDERGNECLLGHKTVFKRRTPHATCFNGEDFDRPVVVSNCSTREDYEC  
FGFKMSEDLSELVCPVDFEFGSKYSPPVPCVPVGSTYRTRRGYRKISGDTCSGGDVEARLEGEVLVPCPLAEENEF  
ILYAVRKSIIYRDLASGATEQLPLTGLRAAVALDFDYEHNNCLYWSDLALDVIQRLCLNGSTGQEVII NSGLETVE  
ALAFEP LSQLLYWVDAGFKKIEVANPDGDFRLTI VNSSVLD RPRALVLV PQEGVMFWTDWGD LKPGIYRSNMDGS  
AAYHLVSEDVKWPNGISVDDQWIIYWTDAYLECIERITFSGQORSVILDNLPHFYAIAVFKNEIYWDWSQLSIFR  
ASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSRCPEDVSSSVLP SGDLMDCC  
PQGYQLNNCTVKEENTCLRNQYRCSNGNCINSIWWCDFDNDGDMSDERNCPPTICDLDTQFRCQESGTCIPLS  
YKCDLEDDCGDNDSESHCEMHQCRSDEYNCSSGMCIRSSWVCDGDNDCRDWSDCANCTAIYHTCEASNFCQRNGH  
CIPQRWACDGDGTDQDGSDEDPVNEKKNCGFRCPNGTCIPSSKHCDGLRDCSDGSDGEQHCPELCTHFMDFVCKN  
RQOCLFHSVMCDGIIQCRDGSDEDAAFAGCSQDPEFHVKVCD EFGFQCQNGVCISLIWKC DGMDCDGYSD EANCE  
NPTEAPNCSRYFQRCENGHCIPNRWKC DREND CGDWSDEKDCDGS HILFFSTPGPSTCLPNYYRCS SSGTCVMDT  
WVCDGYRDCADGSD EEA CPLL ANVTA A STPTQLGRCDRFEFECHQPKTCIPNWKRC DGHQCDQDGRDEANCPTHS  
TLTCSREFQCDEGEACIVLSERC DGLDCSDSEDEKACSD ELTVYKVQNLQWTA DFGSDVTLTWMPRKMPKSAS  
CVYVNYVYRVGESIWKLTETHSNKNTNLVKLVLPDITTYQVKVQVQCLSKAHNTNDFVTLRTP EGPLDAPRNLQLS  
LPREAEGVIVGHWAPP IHTHGLIREIYIVEYRSRSGSKMWASQRAASNFEIKNLLVNTLYTVRVAAVTSRGI GNWS  
DSKSIITTIKGVIPPPDIHIDSYGENYLSFTLIMESDIKVNQYVNVNFWAFDTHKQERRTLNFRGSLSHKVGVLN  
TAHTSYEISAWAKTDLGDSPLAFEHVMTGRVRRPAPSLKAKAINQTAVECTWTGPRNVVYGFYATSF LDLYRNP  
KSLTSLHNKTVIVSKDEQYFLVRVVPYQGPSSDYVVVKMIPDSRLPPRHLHVHTGKTSVVIKWSPEYDSDP  
QDLLYAI AVKDLIRKTDRSYKVKSRSNTVEYTLNKL EPGGKYHIIVQLGNMSKDDSIKITTVSLSAPDALKIITE  
NDHVLLFWKSLALKEKHFNESRGY EIHMFDSAMNITAYLGNTD NFFKISNLKMGHNYTFTVQARCLFGNQICGE  
PAIILYDELGSGADASATQAARSTDVAAVVVPI LFLILLSLGVGFAILYTKHRR LQSSFTAFANSHSYSSLGSAI  
FSSGDDLGDEDEDAPMITGFSDDVPMVIA

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**FIGURE 829**

AGGCCTGCGGAGACGCTAGAGGAGCGCGCCCCCGGCGMTGCCGMCCTGGCCCGTGCCGTACCCCGCTTC  
TCCGCGCCTTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCTCCCG  
GTACCCGGGACCCAGCCGCGCGCTCGCCCCAGCCGCGCGCGCGCACAGTCCCCGGAGCCGGGCCTAGGGG  
GGCGGACGGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCTGCCCATGGCGCGGCCGGCTGGCGGGACGGC  
TCCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTC  
ATCCAGTCCCTATTTTGTAAACGGATTATGATCCAACCATTTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGAC  
AGAGCAGCCCGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGG  
ACTGGCGAAGGCTTCTGTGGTCTTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGA  
CAGATTCTCAGAGTAAAGGATCGTGATGAGTTCCTCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA  
AGACAGGTAAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAG  
ATTAGGATGAATGTAGATCAAGCTTTCATGAACTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCCT  
CCTTCACCAAGAACACCGGAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCACTTTTCTAGAATCCCTTCAGT  
TTTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTCTCTCCTCAGTTTACATCTTGTGGTACCTTTCT  
AGCCTTAGACAAATGATCACCATGTTAGCCTTAGACGAAGAAGCTGGCTAGTCCCTTCTGTGAAGCTAATACAAT  
GGTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTTAAAAATATATGTC  
TATATACACAGACATGCTCTTTTTTAAAGTGCTTACATTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGT  
TTGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTGGAACTCATCTGCTACTGTTACTCTAAATA  
GAAATATAGGTTTTTTTTAATGTGAATTTTTGGCTATCTTTAAACATTTCAATGTGAGCCTTTGTTAACTTAA  
ATACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACCTTTTGTCTTGATGGC  
CAAAAATACCAATGCTGTGTTATTTATGGATTAATAAACTGCTTATAAAACCTGTGTTACTACTCCTACTCTTG  
GAGATGATAATATCTATGTGGTCAAAATATTTGGACTCATTTAGGACTTAGATATTTCAAGTACTTGATTTTTT  
AATTTAACTCTTTTTACAGCCACGCTAAGGGTAAAAAGGAATAATTTCTTCTGCTCTCTTTTCAAGTATTTT  
TGGGTAAAGGATTCAAAAACATAAACTGTTTTGTGTTGTAATATAAAATATGGAATTGATCTTTCCAGGGTCAG  
AGATGATTAATGTTTTTGCTATATACTTTTATACATTATTTCTTATCAAAGTATTTAACAAGTATTTTATATG  
TTTGTAAAGCAGATATGCTTTCATAGCATACCTTGTTGATATGTAAGATAAGTATTTAATTTCTCACTGTTCACTT  
TTAACTGACAAAGAAAAACAGTGGAAACTACAGAACTGTGGTAGAACCTTTTACTTGCTGGTCTGGTCTGGTT  
GTACCCATCTTTGGCCAGTCACATAACTACTCAAGAAACCTTCCCAATAGAGTACAACAGGATGAGACTCTGAAA  
TCACCTTCAGTATTCCTGCTAGATATTGATTGTTATTTCAAGTATTAAGTGAAGCTTTTAAATGGATAATTAGT  
ATAACTGTGGATGGCATCTGATTTTTGTTTTAACTCTGTGGATTGTGTTTAAAGCAATTCATAGTATGTTCTGTA  
TTTTGAGATGCTAAGTGGTATTGCACAGTTGTCACCTTATCAAGTGTGTACAACAGTCCCATGAAGTTTATAGAG  
CATACCTTGTATAGCTTTCAGGTGCTAGAAATTAATAATGATCTGTTATCACAAAAAATAAAAAAAAAAAGG  
CTCTTTAATTAGGCG

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**FIGURE 830**

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCGCGCTACCGCGCTACCGGCCCTCCAGACGCTCCCGGT  
ACCCGGGACCCAGCCCGGCGCTCGCCGCGAGCCCGCGCGCACAGTCCCGGAGCCGGGCTAGGGCGG  
CGGCAGCGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCCATGCGCGCGCGGCTGGCGGGACGGCT  
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTGGGCGGGGCGGCGTGGGCAAGTGGCGCTCACCATCCAGTTCA  
TCCAGTCTATTTTGTACGGATTATGATCCAAACATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA  
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA  
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC  
AGATTCTCAGAGTAAAGGATCGTGTAGTGTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA  
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA  
TTAGGATGAATGTAGATCAAGCTTTCCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC  
CTTCACCAGAACCAACACGGAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTCTAGAAATCCCTTCAGTT  
TTAGTACCAACGGCCAGGAAAAAGCCCTCATCTTCTTTCTCTCCTCAGTTTACATCTTGTGGTACCTTTCTA  
GCCITAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCCTTTCTGTGAAGCTAATACAATG  
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCCTTTAAATATATGTCT  
ATATACACAGACATGCTCTTTTTTAAAGTGCTTACATTTTAATAGAGATGAATCAGTTTGGAACTAAGCTGTT  
TGCCAAGCTGAAGCTACAGGTTGTGAATAATTTTAACTTTTGGAAATCATACTGCCTACTGTTACTCTAAATAG  
AAATATAGGGTTTTTTTTAATGTGAATTTTGCCTATCTTTAAACATTTCAATGTCAGCCCTTGTGTTAACTTAAA  
TACACTGAATTGAATCTCAAAAAGTGAACCATCTCAGACCTTTACTGATACATACTTTTGTGTTTCTGATGGCC  
AAAAATACCAATGCCTGTTGTATTTATGGATTAATAAACTGCTTATAAAAAAAAAAAAAA

**FIGURE 831**

MAAAGWRDGSQGEKYRLVVVGGGGVGKSALTIQFIQSYFVIDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF  
GAMREQYMRITGEGFLLVFSVTDGRGSFEETIKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK  
VTYMEASAKIRMNVDQAFHELVRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

**FIGURE 832**

TTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGGGAATTTT**TAA**AGGAAA  
TGTTTTTCTTTTTTTTTTTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCTTCTTAAGTGGAATATT  
CTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTCATTGATGCTGACTGCCA  
CTCCTTTCTTTCAAGGACAGTGTTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTTATTTAGGGGGTAAAGT  
TAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAAAAAGAAAGTTATTTT  
TTTGCTTAAAGAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAACATACTGATTGGTCTTA  
AAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTCTACAAAACTGAAAAATGAACCTGGTTCT  
AGAAGAATGTACACCAAAATAAAACATGTGAAGCAGTATTGATTCCTT

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**FIGURE 833**

LSTCFGYKAFLTFYKPTFKGNF



GCACGAGCATAGACTTTTAACTGGTACGGTTCCTAGAGAATGCGTCTTGGCCCTCTGTTGTGTTGTGKGTTTTTT  
TCTTTTTCTTTTTTTTTCAGAGTCTTGCTCTG  
TCACCAAGACTGGAGTCAAGTAGTGATCTCGGCTTCATGCAACTGGGAGGCAGAGGTCAGTGAGTCGAGA  
TGTGCGCATTGCTCTGTTTGGGCACAAAGATGAAACTCTTGCTCTCAAAAAAAAAAAAAAAAAAATGAGGTTTAA  
CAGTTTTGTCACTTCTGTTGAGGATCTGGTCACACAAAGATAGCATTAACGTCGACATGGCCATCAAAATGGTTAA  
AAAAATTTGTTTTTAAATGCGTAATGTAAAGGCCACAAACAACCTTTATGCAAGATTGGAATGTATCTTCAAA  
TCAGATTTTAAATAACATGTAAAGATCTCTGTATATAAAGTGTAAATTTATCCCTTGTCCTCCAAAGATGCTAT  
AAAAAGATCCCAAGTGTTATCTATGAAAGATGACCAATAGGGAATGGTGACCAAAATATTTATTTGCCAAATC  
TAAAAAACATGGACTTAAACCCCATGAAAACTGGTTCATAGTTTTAACTGTTTTATGGTTCCAATACAAAAC  
AGAGTGGTTTATCAATTCACCAATXACCAAAATTTGCATCCAATXTTGGGGTAATTTXGXTATTTGCCATGGGATC  
TATTCATTTTT

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**FIGURE 835**

MVLGLLLLLXFFSFSSSPSPSSLLLLSSFFFQSLALSPRLE

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**FIGURE 836**

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCGCTTCGCCTCCTGAATCCCTAGCCATATGCGTGA  
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA  
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT  
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTGTAGACTTGGAACCCACAGTCATTGATGAAGT  
TCGCAC TGGCACCTACCGCCAGCTCTTCCACCTTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA  
TGCCCGAGGGCACTACACCATTTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTGCAAGCTGGCTGACCA  
GTGCAACCCGCTTTCAGGGCTTCTTGTTTTCCACAGCTTTGGTGGGGGAAC TGGTTCTGGGTTCACTTCCCTGCT  
CATGGAACGCCTGTGAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTACCCGGCACCCCAAGTTTC  
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGTGCCCTTCAT  
GGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA  
CCGCCTTATTAGCCAGATTGTGCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC  
AGAATTCAGACCAACCTGGTCCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCACTCTCTGC  
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACC AATGCTTGCTTTGAGCCAGCCAAC CAGATGGT  
GAAATGTGACCC TGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT  
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGAATTGGTGCCCACTGGCTTCAAGGT  
TGGCATCAACTACCGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT  
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC  
CTTTGTTCACTGGTAGTGGGTGAGGGGATGGAGGAAGGCAGTTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT  
TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACTTAATT  
ATCCATTCTTTTGGCCCTGCAGCATGTGTCATGCTCCAGAATTTTCACTTCACTTAACTGACAGATGTTAAAGC  
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGCTTTTCCATGTGTACCTGTAATATTTTTCATCATATCTC  
AAAGTAAAGTCATTAAACATCA

**FIGURE 837**

MRECISIHVGQAGVQIGNACWELCYCLEHGIQPDGQMPSDKTIGGGDSFNTFFSETGAGKXVPRAVFDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTSGSGFT  
SLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIHFPLATYAPVISAEEKAYHEQLSVADITNACFEPAN  
QMVKCDPGHGKYMACECLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGEFSEAREDMAALEKDYEYVGVDSEGEGEEEGEE  
Y

## FIGURE 838

GGGCTTCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCCTCT  
TTGCCAGGCCTGGGTCTTCCAGTGACCCCTCAGCCTTCACTTCTCTCTCACTCCCGGGGAGCTGTGACAGGTG  
TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCCG  
**GATGT**TTGGGGAGACATCTGCTGGGTTCAGCCCCAAGTCCCCAACCTGGCTGTCTGGCCTTGCTGTCTCACC  
CCCCGTGCCACTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCTTGGCACGGGCCTGA  
TCTGTTTTCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCTCCGAGGTAGGCAGGGG  
CCTCAACCCAGAGCCCTCTCACACCCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCACCCCCACCCC  
AGGAAGAGGAGATCCCAGAACTGGAGATT**TGAC**GTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCGGGCTG  
CCAGGGTCAAGGAGCTGCTGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC  
GGGGCATGCAG**AAG**CTGAGCACACCCAGAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCACAGGA  
CAATCGCTGCCCCCAACCTCGTAGCAACAGCAATACCGGGGACCTGCGGCCAGGCCTGGTGCCATGAGCAGG  
GCTCCTCGTGCCCTGGCCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA  
TTAAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 839**

MLGRHICWVSPRSPTLAVWPCLSPPVFTGRDRKLPHPALGSLPWHGPDLFSSPEQLLFCLLGRGLGSSEVGRG  
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD

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**FIGURE 840A**

AAGTCAGCGCTGGAGTCGGCTAGCGGCTGGAACCGCGGCTGCCCGCGGTACTCAGGGAGGCGGGAGGCGGGG  
GAGGAGCTCTTCTTCGAGCGGTGGAAACATGCTGCTCAGCGCTCGGAGAAAGTTGGCCGGTATTGGTGGGGAGGA  
GGTTTCTCAGCTCTGCTCCGACGCCGAGCGGACCGATGGCGACCCACGACAGCTGGGACGCTGGAGCGCGTCCGCGAGT  
GGCCCTGGCTTCCGGGACCATTCGAGCTGTTTCCACACCGACGTTACCAAGAAAGACTTGAAGTGTGTGGTG  
AATTTGATGGGGAATCTTGGAGGAAAAAGATGGATAGAAGTCTACAGCCTTCTAAGGAGAGCATTTTTAGTAG  
AACATAATTTGGTTTTAGCTGAACGAAAGTCACTGAAATTTCTGAACGAATTTGACAGTGGCGTGCATTAACCT  
ACAAACCTCTGTTGGACAAAGCTGTTTGGGATCCATAAATCTGTCTCCTTTGGGAGATCAACAAAGAGTAT  
TTCTTTCTAAAGACCTTTTGAAGCCTATACAGGATGTAAACAGTCTTCGACTTCTCTTACGGATAATCAGATTG  
TCAGTAAAGAAATTTCAAGCTTTGATTGTGAAGCATTTAGATGAAAGCCATCTTTTAAAGGTTGACAAAACTTAG  
TTGGTTTCAGAAGTAAAAATTTATAGCTTGGACCCATCTACTCAGTGGTTTTTCAGCAACCGTTATAAATGGAAACC  
CAGCATCAAAACTCTTCAAGTCAACTGTGAGGAGATTCCAGCACTGAAATTTGTGATCCGTCAGTATTATG  
TTGAAGTTGTACACGATAAATCTTGTGACATGTGGTAATTCGCAAGAAATGGAGCTGTAAACCGCAAGTCTTCTG  
AGAATAATGGAAACCTGGTTTCCAAACAAGCAAAAAATCTTGCTCTGAGGACTCTCCAGATATGTGCTGTGCACT  
CTGTACCTACAACAGTTTTTAAGGAGATACTGCTTGGCTGTACTGCGGCACTCCACCTAGTAAGAGCCCAAGAC  
AGCAAGTAGTCCCCAGGCTGCCAATCTCCACCTAACCTTGAGCAAAAAATCTCTCAAGAGTGTCAACAAAGAA  
GTTTACAGAGGAAATTTTCTTCTGTCTTAAATACAAAGCTGAAGCTCTGAGAACAAACAGATGTGTGCAAG  
CAGGGTTGCTCTCAAAGTCCCTTCAGATTGGAAGTGGAGACTGAAATTTCTGACTGAGCCAAAGGACAGCTGTA  
CTCAGCTAAGACAACACTGATCAGGAAAAAGATTTGGAGTCTGTTCCACAAGCAATTTGACTGGCCCTCTCAAGG  
AGTGCTTACCTACAAGGCTTCTTCTAAGGCAGAATTTGAAATTTGCCAATCTCTGAACTGCAGAAGCACCTTAG  
AACATGCACCTTCCCATTCGGATGTTCTAAATGCACCAAGAAGTGAAGCAGGTGCTAATAGTGATAGCCCTAATA  
ACTGTTTCAGGAAAAAGGTAGAACCCTTCAGCTTTAGCTTGCCGATCACAGAATTTAAAGGAATCTTCAGTAAAG  
TAGATAATGAAAGCTGTGTTCAAGAGCAACAATAAATCCAGAATGCCCATCCAGGAAGTCGGTTTTGACAG  
ACCCAGCTAAATCAAAAAGCTGCAACAGAGTGGCGAGGCGCTTCGTACAGGATGATTTCTTGTGTGAACATCGTGG  
CACAGTTGCTAAATGGCGAGAGTGTGCTTGGACAGTCTCCGCAAGGATAAGGACCAAGAGGCATCCACTGT  
TGTTTTGCGCGTCTTTCACCTCAGGAGGTTACAATTCACAAACATGGTGTGTGCGGGTAGAAGGCTTCTTAA  
CACCAAACAAGTATGACAATGAAGCAATTTGGCTTGTGGTTACCTTTAACCAAAAAAGCTGTGCGGGATTGATTTGG  
ACACAGCAAAAGTACATCTTGGCCAACATTGGAGACCACTTCTGTCAAATGGTGATTTCTGAAAAGGAAGCTATGT  
CAACTATTGAGCCACACAGACAGGTTGCTTGGAAAGCGAGCTGTCAAAGGTTGTCGAGAAATGTGTGATGTGGC  
ACACCACCATCTTCAACTGACATGGGTGTGCTTCGGTGTGGGTTGGAGTATGTGTGACTGCTACCGCATGA  
AGAGAAAGAAATTGCCAACAGGGTGTGCTTACAAGACTTTCTCTTGGCTAAATGTGTGAAGAGTCAGATACATG  
AACCAGAGAATTTAATGCCCAACAGATCATCTCTGGAAGAGCACTCTATGATGTGGAGACATTTGTTCAATCTGT  
TAAGAGCGAAATTGGGGAATAAAGGCCAACTGCCCCTTGTTCAAACAGGCAATTTCAAACTCTTTTCAAAGCGAGCT  
CAAAGGAAGACCTAAACAGACTTCTTTAGCTGGAGAAAAACCGACTCTTGGTGCAGTGTCTCCAGCAGAATCCCT  
CAGTGTGAGGACGACGACTGTGGGTGGGGAAGCAGCTCCAAGCCAGCGCGGACGATGAAGCCCTGCCCTGTCCAG  
CCAGCATCTCTCTTAACTGAGCTGGCCGACCTAACAGCGGGAATGTCAACAGGAAAAACAGGAAAAACAAC  
CAACAATGCCAATTTTAAAGAATGAAATCAATGCTTCCACCCCTCCACCTTTAAGCAAAATCCAGCACAGTCTC  
TCCATACGTTTAAACAGCAAAATTTGACACCCGTAAGCAACAACAATCTGTGTTCTCCGGAATCTCTTGAAT  
CTTCTACAGGAAGACAGAAAATGGACTCAAGAAATACACAAAAATCCCTTGATGACATCTTTGGCTCTTTGGTGC  
AAAAAAGACGACTTCTGATTATCTAAGAGGCTCAAGGACTAACCATCAAGCCAGCATCTTGGGCTTTGACA  
CTCTCTCACTATTGGCTTTGTGATAATCGCTTGTGTGCTTGAAGACCCCAACAATAAGAGCAACTGGAATGTGT  
TTAGGAGTGTGAGAAACAAGGACGAGCAGTGTGGTGTCTGGAGTGCAATATAAATGAACTCTGAACTTTGGA  
AACCCTGAATCCTTCAGGAAGAGATTTGGTGAGCAGGAAGTAGACCTTAGTAACTTTTAGGACCAATGAAATCATCA  
CAGGAGCCACAGTAGGAGACTCTGGGATGGATTGAAGATGTTTCAAAATGTTGAAAAATGAAAAAGAACCAA  
TGGTGTGAAACTTAAGGACTTGCCACAGGAGAGAAGATTTAGAGATATGATGCTTCCAGGTTTGTGATCTGA  
TGCCCAACATTTCCATCGCCGAGTACACAAAGGCAGATGGCAAACTGAAATTTGGCTCTTAGGCTGCCAACTACT  
TTGTTGCGGCAGACTTGGGCCCCAAGATGTATAATGCTTATGGATTAATCACTCTGAAGATCGGAAATATGGAA  
CAACAATCTCTCACTTAGATGTATCTGATGCAGCTAATGTCATGGTCTATGTGGGAATTCCTCAAGGACAGTGTG  
AGCAAGAAGAAGTCTTAAAGACCATCAAGATGGAGATTGACGAACTCACAATAAGCGATTATTGAAG

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**FIGURE 840B**

GAAGAAGAGCCAGGAGCAGCTGTGGCACATATATGCTGCAAAGGACACGGAGAAGATAAGGGAATTTCTTAAAA  
AGGTATCAGAAGAGCAAGGTCAAGAAAACCCAGCAGACCACGATCCTATTTCATGATCAAAGCTGGTATTTAGACC  
GATCATTAAAGAAAACGTCTTCATCAAGAGTATGGAGTTCAAGGCTGGGCTATTGTACAGTTTCTTGGGGATGTGG  
TGTTTATCCCGCAGGAGCTCCACATCAGGTTTCAAACTTATATAGCTGCATCAAAGTGGCTGAAGATTTTGTTT  
CTCCAGAGCATGTTAAACACTGCTTCTGGCTTACTCAGGAATTCGGATATCTGTCACAGACTCATACCAATCAG  
AAGATAAATTACAGGTGAAGAATGTTATCTACCATGCAGTGAAAGATGCAGTTGCTATGCTGAAAGCCAGTGAAT  
CCAGTTTTGGCAAACCTTAACTCTCCCTGCACATTGGAAATGAATTACAGGCAGCTGTTCAAACCTTTCAGGCAGG  
ATTCTCTGGGACTTTGAGATTCATGTTACCTCATCTTCTTTTTTAAACTGTACCCAACTTGTGAGGGTACTCTGT  
CTAATGTATATTCTAGTGTTTACAGACAGTAAATGTGTATATGTAGTAACTATTACAGAACATGCATCCTTAA  
ACTGTGACTTCTCACCTAGTGCAGAACTTTTACCAGGCTGTAAAAGCAAACCTCGTATCAGCTCTGGAACAATA  
CCTGCAGTTATTCTTCAGCTGTTTGGACAACCTTAGATTGGGTTTATAACTATTAGGAATCACTGCACAGTTTATT  
TGGGTTGTGTTTTGTGTCTGAGTCCCCCTCCCICATCCCTTAGGGTCCAGAAGAGCAATGGAGGAAGTGACAGCTA  
ATGTTGCAGTTCTTATTGTATGGCATAGGACTGGCATTATATAGCAGAAATCAACTACTGTACAATTTCTTGGGG  
TTAACCATCTTTAGTTAAATGGAATTTAATTTAAATGACGCTTTGCTAATTTTAAAGTGTTAAGCATTTTGCAAT  
AAAATATTTCATATAAT



**FIGURE 841**

MVLTILGESWPVLVGRRLSLSAADGSDGSHDSWDVERVAENPWLSGTIRAVSHTDVTKKDLKVCVEFDGESWRKR  
RWIEVYSLLRRAFLVEHNLVLAERKSPEISERIVQWPAITYKPLLDKAGLGSITSVRFLGDQQRVFLSKDLLKPI  
QDVNSLRSLTDNQIVSKEFQALIVKHLDDESHLLKGDKNLVGSEVKIYSLDPSTQWFSATVINGNPASKTLQVNC  
EEIPALKIVDPSLIHVEVVHDNLVTCGNSARIGAVKRKSSENNGLTVSKQAKSCSEASPSMCPVQSVPTTVFKEI  
LLGCTAATPPSKDPRQOSTPQAANSPPNLGAKIPQGCHKQSLPEEISSCLNTKSEALRTKPDVCKAGLLSKSSQI  
GTGDLKILTEPKGSCTQPKTNTDQENRLESVPQALTGLPKCECLPTKASSKAELEIANPPELQKHLEHAPSPSDVS  
NAPEVKAGVNSDSPNNCSGKKVEPSALACRSQNLKESSVKVDNESCCSRSNNKIQNAPSRSKSVLTDPAKLKKLQQ  
SGEAFVQDDSCVNIVQLPKCRECRRLSLRKDKQQKQDSPVFCRFFHFRRQLFNKHGVLRVVEGLTPNKYDNEAI  
GLWLP LTKNVVGDIDLTAKYILANIGDHFQCMVISEKEAMSTIEPHRQVAWKRAVKGVREMCDDVDTTIFNLHWV  
CPRCGFVGVDCYRMKRKNCQQGAAYKTF SWLKCVKSIHEPENLMPTQIIPGKALYDVGDIVHSVRAKWGIKAN  
CPCSNRQFKLFSKPAKEDKQTS LAGEKPTLGAVLQQNPSVLEPAAVGGEAASKPAGSMKPACPASTSPNLWLA  
DLTSGNVNKENKEKQPTMPILKNEIKCLPPLPLPSKSSTVLHTFNSTILTPVSNNSGFLRNLLNSSTGKTENGL  
KNTPKILDDIFASLVQNKTSDLSKR PQGLTIKPSILGFDTPHYWLCNRLCLQDPNNKSNWNVFRECWKQGGP  
VMVSGVHHKLNSELWKPESEFRKEFGEQEVDLVNCRTNEIITGATVGD FWDGFEDVPNRLKNEKEPMVLKLDWPP  
GEDFRDMMPSRFDL MANIPLPEYTRRDGKLNLSRLPNYFVRPDLGPKMYNAYGLITPEDRKYGTTNLHLDVSD  
AANVMVYVGI PKGQCEQEEVLKTIQDGDSELTIKRFIEGKEKPGALWHIYAAKDTTEKIREFLKKVSEEQGGEN  
PADHDP IHDQSWYLDRLSRKRRLHQEYGVQGWAVQVFLGDVVFIAPAGAPHQVHNLYSICKVAEDFVSPHVKHCFW  
LTQEFRYLSQTHNHEDKLQVKNVIYHAVKDAVAMLKASESSFGKP

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**FIGURE 842**

CTAACCCAGTATGTTCTTCTTTTTTATGTAAGGNACAGCTTTCTCCACAGAGTCCTTCTGCTGGTGAGGACAGC  
ATTTCTGAGCAGGGCTTTGTTCTCTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGA  
CAGCATCAAATGCCGCCTCTTCTAATGTCTTCAAGTTTTTCATGAAC TAGCAACCCACCTTCCACCATGGTTC  
TGGGCGCCTGATTTTGCTGTGACTC

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**FIGURE 843**

GAAGGGGGCTGGGCGGAGGCCCCAGGCTCAGAGGAGGAGGAGGAGCAGGAGGAGAGCCTGGCGGTGGCGGA  
GCAGGGAAGGGGCGCAGGGAGTCTGAAAGCTCCAGGAGCAGCAGAAGGCCAGTGCCCGGTCTCCAACCACTAC  
TGAGAAGCGCATGAGCTTCGAGTCCATTTCTTCCTGCCAGAGGTTGAGCCGGACCTTGAGGCTGGGAGTGAGCA  
AGAGGTATTTTCTGCTGGGAAGGGCCAGTGCCGAGGAGACGCCCTTACACACAGAATCTCCAGAAGTCTTGGA  
GACACAGCTTGTATGCCACCACAGGCCCTTCTGGGGATGGACCCCCAGGTGACATGGTGACTTCTGGCAGCTGA  
GAGCACTGAGGACCTTAAGGCCCTGAGCAGCGAGGAGGAAGAAGAAATGGGAGGTGCCGCCCAAGGAGCTGAGAG  
CCTTCTGCCACCTCTGTGCTGGACACAGCCAGCGTCAATTGCGGAGCGATTTGTACAGCAGCTTCTCTCGGCGGAG  
CAGCGTGGCACAGGAGGACAGCAAGTCCAGTGGCTTTGGGAGCCCGCGCTGGTCAGCCGGAGCAGCAGCGTGCT  
CAGCCTGGAGGGCAGCGAGAAGGCCCTGGCCCGCATGGCAGTGCCACAGACTCCCTCAGCTGTCAGCTCTCCCC  
AGAAGTGGACATCAGTGTGGGGTGGCCACAGAGGACAGCCCTTCTGTCAATGGGATGGAGCCCCCAAGCCCAAGG  
CTGCCCAGTGGAGCCTGACCCGGTCTTCCTGCAAGAAGAAGGAATCAGCACTCTCCACCCGAGACCCGGCTGTGTCT  
AGACAAGATTAAGAGCTGGTGGCCCCACTGCACCCCCGCATCTGTCAGCTCTCCCACTAATGGACAGCCACGTG  
AGCGAGCGCGTCAAGAACAAGGTCTACAGCTGGCCCGCCAGTACAGCCTCCGGATCAAGAGCAACAAGCCAGTG  
ATGGCCAGGCCACCACTGCAGTGGGAAAAGGTGGCCCTGAGAGGGATGGGAAGAGCCCCACTGTGCCCTGTCTA  
CAGGAAGAGGCTGGAGAGCCATTAGGTGGCAAAGGTAAGAGGAAGCCGGTGCTGTCTCTATTGACTATGAGCAG  
CTGATGGCCCAAGGAGCACAGCCCTCCCAAGCCCTCTCGGCTGGGGAGATGTACACCACAGCGTTTCTTCTTCAAC  
CCGTCTGCTGTAGCCAGAGGACCCTCGCCTGGGGGCCGGCCCTCCGCCCGGAGGCCCTCAGCCCCACAGAG  
ACCTTCAGCTGGCCCGACGTCCGTGAGCTCTGCTCCAAGTATGCTCCCGCATGAGGCACGCCGAGCAGGGGGC  
GGCCGGCCCCCGGGCCACCCGTCACAGGAGCCACTCGGTGCCGGAGAACAATGGTAGAGCCACCTCTGTGCGGC  
AGGGTGGCCGCTGCCGAGCCTGAGCACCAGAAGGGGGCCGGGAGGGCGGAGAGGCTGCCCAATCCCTTGGGCT  
CTGCCCCAGAGCAAGCCGATGGAGGCAGACCCCTGTATGTCACTGCAGACCTACCTTGAGGACAACCGGCGG  
GTGATTGTATGGAAAGGGACCCCTTCCAGCCCCACTGCAGGGCTGGAGGAGAGCAGTGGCCAGGGACCAAGC  
TCACCGTGGCCCTGCTGGGGCAGGTTTCAGGACTCCAGCAGTCTGCAGAGTGCCAGCCGAAGGAAGAGGGTTCC  
AGGGACCCGGCAGACCCGAGCCAGGCGCAGGGCAGAGTGAGAAACCTTAGAGAGAAGTTCCAGGCCCTTGAAGTCTGTC  
GGTTGATGCTGACTCTGGGGGAGGGAGGAGTCAATGTGGAGGTGGGGAAGAACCTGGGCATCCTTCCCTCAA  
GCCTGGGCTCATGGAGCCCCTGCCAGGGCCCTCAGGTGGGCGGAAGTCCATCCCTCCGCCCTTCAGGAAGGA  
TGCTCCCGTGTGACAGGGTCTCCTGCTGTGCCATCCACTGGGGCTCGAGACAATTTCCCACTCACTGTGAGGC  
CGGTGTGGCTGCTTCCCTTGTAAATAGTTGTTCTCTGGTAAGAAGCCAATATTTAAGTCACTTCTTCCACAG  
AGAGGAAGCTCTGCTCAGGCCCTCCAGCGTTGGCTGGCCATGGCCACAGCCAGATGGAGGAGCCCATCCCCAGGAG  
ACTCAGGCAGTGGCCTGGAGAGGCTTTGTTCTGTAAACGGTGCTTTTCTTAGGGTCCAGGCAGGAATGAAGCCAA  
TAATTTATTGCTTTCCATTCTGTGGTATGATGTGCGTGTGCGTGAGTGTGTGGCCCTGTTTATTCCCCCTCTGT  
CAAGAATGAAGTTCAGTTCAGGTACTTTTGAAGGTGTTGTGCTGACCTGTGGTGTGCTGATGTACAC  
ACATTTTCATTATTGCCAATGGTGCAATAACCACTGCTGACCAACAAAAAAAAAAAAAAAAAAAA

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FIGURE 844

AATCCAACCTCACCTCCATGTTCAAGGATGTCCCTCTGACTGCAGAAAGGTTGGAATTGTGGTGGAAAAAGCATT  
GAGCATGTTCTCCAAGATGAATCTTCAAGAAATACCACCTTTGGTCTATCAGCTTCTGGTTCTCTCTCCCAAGGG  
AAGCAGAAAGAGTGTTTTGGGAAGGAATCATAGCCCTTCTCAGTGCATAGATAAGCAGCACAATGAGGACAAGAG  
TGGTGACGAGCTATTTGGATGTTGTCACTGTGCCATCAGGTGAACCTTCGTCATGTGGGAAGGCACCATTAATCTACA  
CATTGTGTTTGCCATCAAAATGGACTATGAAC TAGGCAGAGAACCTCGTGAACACTTTAAAGGTAGGACAGCAAGG  
AGATTCCAATAAATACTTAAGTCCCTTCAGCATTTGCTCTTCTGTCTGTGAACAAGAAATACAAAGATTTCAGGA  
CCAGGTGCTTGATCTTTTAAAGACTTCGGTTGTAAAGAGCTTTAAGGATCTTCAACTCCTCCAAAGGCTCAAAAT  
TCTTCAGAACTAGTTTCTCATAGATCTTATGTTTCAACCATGATCTTGAAGTAGTGAAGAAATAGCGTTCATAG  
CTGGGACCATGTTACTCAGGCGCTCGTAGAACCTTGGTTTCATTTTGATGGATTATATGGGCCAAAAGAGGTTCT  
TGATGGAAAACATTTGAAAACCGCAAGCTCTTCTAGAAATGCCAAACCAGCATGCAATGAAGCTCGGAGCTAA  
TATCTGTTGGAAACTTTTAAAGATCCATGAGATGATCAGACAAGAAATTTGGAGCAGGTCTCTCAACAGGGTTGT  
TACCAGAGCATCTCTCCCATCAGTCATTTCTAGACCTGCTTTCAAATATCGTCATGTATGCACCCCTTAGTTCT  
TCAAAGTTGTTCTCTCAAAGTCACAGAAGCTTTTGACTATTTGTCTTTCTGCCCTTCAGACTGTACAAAAGGCT  
GCTTAAAGCAGTGCAGCCCTTCTCAAAGTCAGCATGTCATGAGAGACTGCTTGATACTTGTCTTCGGAAGGC  
TATGTTTGCCCAACGAGTGTGATGCCGAAAACCTGCAAGTTGCTGGGTTTGTGCTCTGGAAGACTTTAAAGT  
TTTAGGCAGCTGTGATCCTCTCAGTGCAGTCAGTCTCTCAGTGTGAGTCAGGTTCATGTGGATGTTTCACAGCCA  
TTCAAATTTCTGTCGCAATGAACCTTTTGCCCTTGAGATCATGGATAGTTTGAAGAGATGCTTAAGCCAGCAAGC  
TGATGTTCTGACTCAGCGTTTATGAGGGTTTATGATGTTCTTCGAAGGAACCTCAGCTGGCTAATTCAGTCAT  
GCAAACTCTGCTCTCACAGTTAAACAGTTTCTATGAGCCAAAACCTGATCTGCTGCCCTCTGAAATTAGAAGC  
TTGTAATCTGACCAAGAGAGATAAGATCTCTCTACAAGAACCTGGATTATCTGCTGTGTGATTCTCAGCATTTG  
TTTGCCCTGGTATAAGAAATACAGTCTATACCCCTTACAGCAGGGAGAGGAGGAAGAGGAGGAGGACCATTTCTA  
CGAAGACCTAGATGATATATTGGAGTCCATTACTAATAGAATGATTAAGAGTGAGCTGGAAGACTTTGAAC TTGGA  
TAAATCAGCAGATTTTCTCAGAGCACCAGTATTGGCATAAAAAATAATATCTGCTTTTCTTGATGGGAGT  
TTGTGAGGTTTTAATAGAATAACATTTCTCCATAAGTAGTTTCAGTAAGAAATAGGTTTGAGGACATTTGAGCTT  
ATTTATGTTTACAAAAACTCTCTGACATTTCTTAATGAAAAAGCGGGTAAAGCCAAAAC TAAATGGCCACAA  
GACAAGTGATAGCTTTTGTCCATGAAATTTGTGTCAGTCTTCTCACTGCTCTTTTCAGACTTTGCTATGGAG  
ATACATTTCAATTCCTACTTCAGTGGGAAGAGTCGGGAAAGAAAGAGAAAGGAAAGAGCATCTCACTGCTGTGCTT  
GGAGGGTTTACAGAAAAATTACGTGCTGTGCAACAGTTCTATCAGCCCAAGATTACGACAGTTCTCAGAGCTCT  
GGATGTCACAGATAAGGAAGGAGAGAGAGAGAAGATGCAGATGTCAGTGTCACTCAGAGAACAGGATCTCCAGAT  
CCGGCAATTTACAGAGTCTCTGTTGAATTTACTTAGCAGTCAAGAGGAAGATTTTAAATAGCAAAAGAGCCCTCT  
CTAGTCACGGTTCTTACCAAGTTTGTCCAAAGTTACTGGAGCCCTCTCTCCTCAGTTTGTCAGATGTTTATCCTG  
GACATCAAAGATTTCGAAGGACAGCCGCGGAGGATGCTTGTGTTTGAAGAGATGCTTGAATCTGATGAACCTTGCTTCAG  
CCTGCATGTTTCGTATAAGAGTCTGTCATTTCTGCTGCTGACTTGTCCAGGATATCCACGGGCATCTGGGAGA  
TATAGACCGAGATGTAGAGGTTGGAGAAAACCAACCACTTTGCAATAGTGAATTTGAGAACGGCTGCCCCCACTGT  
CTGTTTACTTGTCTGAGTCAGGCCGAGAAAGGTTCTAGAAGAAGTGGACTGGCTAATCACCAGCTTAAGGGACA  
AGTGAGCCAAAGAACTTATCAGAGGCCTCTCTCAGGCAACCTTACCAAACTCAGCCTGTTGAGAAAGCTATCAT  
CATGCCAAGTGGGAACCTGCTTACATTTTCCACAGGCTGGTGACAGAGCTCTGCCATCAGGCAGCTGTGTGGA  
CACCTTGTAAAGACTTGTGCAAAATGTACACCACTTACAGCCCTTGTGAGATATTTCTCCAGGTGTGTCAT  
GAGCTCCGGAGGAATTCACAAAAATATGGAAGAGCTGGTGAAGCTGTCTGGTTCTCATCTGACCCCTCTGTTGA  
TTCTTTTCAATTTCTACGTACAGAATAAGAGTAAGAGCTGAACTATACGGGAGAGAAAAGGAGAAACCTGCTGC  
CGTTGCCACAGCATGGCCAGAGTTCTTCGGGAAACCAAGCCAACTCCCAACCTCATCTTTGCCATAGAAACAGTA  
TGAAAAATTTCTCATCCACCTTTCTAAGAAAGTCCAAGGTGAACCTGATGCAGCATGTAAGGCTCAGCACCTCAG  
AGACTTCAAGATCAAAGGAACCTCTAGACATGGTTCTTCGAGAGGATGGCCAAAGATGAAAATGAAGAGGGCAC  
TGCATCAGAGATGGGGACAGAACAAAGAACCCAGCAAGAG

**FIGURE 845**

MFKDVPLTAAEEVEFVVEKALSMFSKMNQEIPLPLVYQLLVLSKSGSRKSVLEGI IAFPSALDKQHNEEQSGDELL  
DVVTVP SGELRHVEGTI ILHIVFAIKLDYELGRELVKHLKVGGQSDSNNNLSPPSIALLLSVTRIQRFDQVLDL  
LKTSVVKSFKDLQLLQGGSKFLQNLVPHRSYVSTMILEVVKNSVHSDHVTQGLVELGFI LMDSYGPKKVL DGTI  
ETSPSLSRMPNQHACKLGANILLETFKIHEMIRQEI LEQVLNRVVTRASSPISHFLDLLSNIVMYAPLVLQSCSS  
KVTEAFDYL SFLPLQTVQRLLKAVQPLLKVSMSMRDCLILVLRKAMFANQLDARKSAVAGFLLLLKNFKVLGSL  
SSQCSQSLSVSQVHVVDVHSHYNSVANETFCLEIMDSLRRCLSQQADVRLTLYEGFYDVLRRNSQLANSVMQTLLS  
QLKQFYEPKPDLLPPLKLEACILTOGDKISLQEPDYLCCIQHCLAWYKNTVIPLQQGEEEEEEAFYEDLDD  
ILESITNRMIKSELEDFELDKSADFSQSTSIGIKNNISAFVLMGVCEVLEIYNFSISSFSKNRFEDILSLFMCYK  
KLSDILNEKAGAKAKTMANKTSDSLLSMKFVSSLLTALFRVLLWRYTS IPTSVEESGKKEKGKSI SLLCLEGLQK  
IFS AVQQFYQPKIQOFLRALDVTDKEGEEREDADVSVTQRTAFQIRQFQSRLLNLLSSQEEDFNSKEALLVTVL  
TSLSKLLEPSSPQFVQMSWTSKICKENSREDALFCKSLMNLFLSLHVSYSKSPVILLRDLSDQIHGHLGDIQDV  
EVEKTNHFAIVNLRTAAPTVCLLVLSQAQKVL EEVDWLITKLKGQVSQETLSEASSQATLPNQPV EKA IIMQLGT  
LLTFFHELVTALP SGSCVDTL LKDLCKMYTTLTALVRYYLQVCSSGGIPKNMEKLVKLSGSHLTPLCYSFISY  
VQNKSKSLNYTGEKKEKPAAVATAMARVLR ETKPIPNLIFAIEQYEKFLIHL SKKSKVNLQM HMKLSTSRDFKIK  
GNILDMVLREDGEDENE EGTASEHGQGNKEPAK

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FIGURE 846A

GGACGAGTCGAGCCTCCTCGGCGCCGCGGGCTCCAGAAGGAGCTGAGCCTGCCACGCCGAGGACGTGGCTGCCG  
CAGCGGGAACCCGCAAGAGCTTGGTGGTAGGAACGCCCTCCCCGACCCTCTCCCGGCCCTGTGCGCCATTGTGCGGT  
CCCACGGCAGGCAGCAGCCCCCTGGATAGTCTCGGAATTTCTCGGCTGCCTCTGCCCTAAATTTCCCCCTTTGCG  
CCGGAGGGCAGCAGCGCAGAAGATGGCCCTCGCGTCTCTCCCATCTTCGGCGTATGGAACCAACACACACCGACT  
CACCCCTCTCGTCAAGCTCATCTCTCCGGGAACGTCTCCACGAGCTTCCCTTCCAGCCGACGCCGGACGAGCTGCA  
CTTCTCTGTCTCAAGCACTTCCCGACGCTCAGAGAATGTGCTGTAGGAGGAGGGCGGGCTCACCCCGCCTCGGACG  
CCGCTCTCGCAGTCTCAGCCCGGGCGGTGCAACGGGGACCTTCGACAATGAGATTGTCTGATGAATCACGCTGTA  
CCGGGAGAGGTTCCCAAGGCCACAGCACAGATGGAGGGCCGTCTGCAGGAGTTCTGACGGCTACGCGCCCGG  
CGCCCGCTGGCGCTGGCTGATGGCGTCTTGGGCTTCATCCACCACCAGATCGTGCAGCTGGCCCGAGACTGCTT  
GGCCAAGTCTGGCGAGAACCTTCGCACCTCCGCTACTTCTAGAGATGCAGGAGAAGCTGGAGCGGCTTCTGCA  
GGATGCCCATGAGCGTTTCGGACAGTAGGAGGTCAGCTTCATCGTCCAGCTTGTCCGGAACGTCTGATCATCAT  
CTCACGGCCAGCTCGGCTGCTGGAGTGTCTGGAGTTTGACCTTGAGGAATTTTACCACCTGCTGGAGGCGGCTGA  
GGGCCATCGCGGGGAGGGCCAAAGCATTAAAGACTGACCTTCCACAGTACATCATTTGGGCGAGCTGGGCTGGCCAA  
GGACCCCCCTGGAGGAGATGTTGCCACTGAGTCACCTCGAAGAAGAACACGCCCCAGCAGCACTGAGTCCCCAGAGAG  
CCGCGCCCTGGTCGGCCAGTTCAGGAGGAAGCCATGCGAAGCGACTTTTGAGACATCAAACTCATTAGCAACGG  
AGCCTATGGGGCGCTTACCTTGGTGGGCAACCGTGACACACGGCAGCGCTTTGCCATCAAGAAGATCAACAAACA  
GAATCTGATCCTGCGTAACCAAGTCCAGCAGGTTTGTGGAGCGTGACATTTCTACCTTTGCCGAGAACCCCTT  
TGTGGTCAGCATGTTCTGCTCTTTGACGCCGGCGCCACCTATGATGGTCATGGAATACGTTGGAAGCGCGCA  
CTGGCCACGCTCTTGAAGAATATGGGCCGCTGCCGCTGGACATGGCCCGCTGTACTTCCGCGAGACGGTGT  
GGCGCTGGAGTACCTGCAATACTATGGCATCGTGACCGTGACCTCAAACAGACAATCTGCTCATCACTCGCT  
TGGCCACATCAAGCTCACGGACTTCGGCCCTGTCCAAAGATCGGCTCATGAGCATGGCCACCAACCTCTATGAGG  
CCACATCGAGAAGGACGCCCGAGAGTTTCATGACAAGCAGGTGTGTGGGACGCCGAGTACATAGCCCCGAGGT  
GATCTTCGCCGAGGCTATGGGAAGCCAGTGGACTGGTGGGCCATGGCGCTGCTCTCTATGAGTTTCTGGTGGG  
CTCGGTGCGCTTTCTTGGAGATACCCCGAGGAACCTTCTCGTCAAGTGGTCAGGATGAGATCATGTGGCCAGA  
GGGAGATGAGGCCCTTCCAGCAGACGCCAGGACCTCATACCAAGTTGCTCCGCGAGAGCCCGCTGGACGGTCT  
GGGCACTGGTGGCACCCACGAAGTGAAGCAGCACCCCTTTTCTGGCCCTGGACTGGGCGAGGCTTCTCCGACA  
CAAAGCCGAGTTCGTGCCCGAGCTCGAAGCCGAGGATGATACCAGTACTTTGACACACGTTCCGGAACGTTACCG  
CCATCTGGGCTCCGAGGACGACGAGACAATGATGAAGAATCGTCCACAGAGATCCCCAGTCTCTCTCTGCTC  
CCACCGGTTACGACAGGTTCTACAGAGCTCTGAGTTCTGGCCGTCCAGGCCACTCTACCTTCTGCTGAAAGGAG  
CTTCAGTGAAGACCGGGAGGAGGGGTGGGAGCGCAGCGAAGTGGACTATGGCCGCGGGCTGAGTGTGACATCCG  
GCTGAGGTCTTGGAACATCTCTTGATCTCTCTGTGATCATCTTCGTCCAGCCCGAGCGGGGTCCCCAGCCCAT  
TCTCTGAATACCATCAGCTCTGAGACAAATGCCAAGTTTGCTTCTCATCAGAGGATGAGGGGGTAGGCCCGAGG  
CCCTGCAGGCCCAAGAGGCCGCTTCTATTCTAGGGGAGCTGACCCCCACCAGCGGCCACCCAGTGATGCC  
CAAGCCCTCGAGCCTTCTGCGCACACAGCTGCTCTAGCCAGCCCGGCTACGGAGCAATAGCATCTGGCGCCCG  
ACACTCCACACCAAGGCTCTGAGTTCGCGCGCGGGCGCGGCTTGGGGCGGACCAAGACACCGCCCTGAGAA  
GTCCAGAGCCTCTCCAGCGGTGGCAGTGGTGGCGGACGTGGGGGCGGCTGCCAAGTCAGCCTCTGTCTCTGC  
CTGTCTCCTCATCATCAGGCGAGATGATGGCAGCGCGGCCCTCATGAGCCCCCTTCCCCGCGCTCTCTGTC  
CTGCAACCGCTGCTCCGCTGACTCTTCTGCCGAGCCGAGACCCGTCCCGCTGTGTGGCAGCGTGTGGCGGCCCT  
CGTTATCCACAGCTCTGGCAAGAAGTACGGCTTCAGCCTTGCGGCGGATCCGGGCTTACATGGGTGATAGCAGCT  
CTACACTGTGCACCACGCTGCTTGGAGTGTGGAGGACGGAAGCCCCGCGCAGGAGCGGGCTGCGGGCTGGGA  
CCTCATCACCCACATCAACGGGGAGTCAGTGCTGGGGCTGGTGACATGGAGCTGTGGAGAGCTGCTGCTGAAGAG  
CGGCAACAAGATATCCCTGCGGACCAACGCCCTGGAGAACACTCCATCAAGGTGGGCGCCCGCCGGAAGAATGT  
GGCAAGGGCCGCTATGCGACGAGGAGCAAGAGGAGCGCTCGCGGGAGACCGAGTCCCGGGAAGTCACTTTT  
CAAGAAGATCTCCAGCAGACCTCCGTGCTGCACACACGCGCAGCTTCTCTCCGGAATCCACCACCTCACTGTC  
ATCCAGTTCGAGCGCTTCCCGGCTCGCCACCCACAGCCTTCTCCCCAGCCCACTCCCTGCCGGAAGCCAGC  
CCCTGATGTCCACAGATACCACTGATCCCCACCCAGCGCATCCCGAGCTCTCAGCAGCGCCGCTCCCGAGC  
TGCTGTGGCCACACCCGCCAGCTCCCTGCACGGCTGGCTGCCAAGCTTGGGCCACCCGCCCCAAGACTGG  
CCGCCGCAAGTCCACCAAGCATCCCGCCCTCCCGCTGGCTGGCCGCCATCTCCGCGCCCCACCCCGCTC

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**FIGURE 846B**

GCCCTCGCCCTTGCCTGGGACCCGCCCGACCTGCCCGATCCCCGGCTGCGCGGGGCCGATCAGCTGACAA  
GCTGGGCACAGGGGAGCGGCTGGATGGGAGGCGGGGCGCGCACTCGTGGGCCAGAGGCCGAGCTCGTGGTCAT  
CGCGCGGCTGCACCTGTCCGAGCGCCGAGACTCCTTCAAGAAGCAGGAGGCCGTGCAGGAGGTTAGCTTCGATGA  
GCCGCAGGAGGAGGCCATGGGCTGCCCACTCAGTGCCACAGATCGCCGTGGAGGGCGAGGAAGCCGTGCCAGT  
AGCTCTCGGGCCCAACCGAAGAGACTGATCCCCCTGCCAGGTCTCTCCCTGGCATCAAAGTTACGCGTTTTCTTGT  
GCAATGTTTTTCCGTAAAGTCATGCTGGATGGGACTGAGCCACCAGCCTGACACCCAGAAGCGAGAAGCCA  
TCTCGGTCCTTGTCTGGAAGGTGGAGACATCGCTTGTGTTCTGGTGTCAATCAGGGGGCTGGATGGGGCAAGAATG  
GGGACAAAGGTGGCTTTGTAATAGCAGCAAAATCCCTGCAACTAATTTATTACTTTTTTTTTCTTTTTTTTT  
TTTTTTTGAGACAGAGTCTCACTCTGTTGCCCGGCTGGAGTGACGCGCGTGATCTCAGCTCACTGCAACCTCC  
GCCTCCCAAGTTCAAGCGATTGCTCGCTCAGCTTCCCAAGTGGCTGGGATTACAGGCGCCCACTATGCCC  
AGCTAATTTTTGTATTTTTAGTACAGACGGGGTTTACCATGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCA  
TGATTTGCCCTGCTTTGCCCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACTGGGCCCAGCCTAATTTATTACT  
TTTTATAAGCGATAGCCGTACTGAGCCGCCCTGAAAGCGGCTGCCAGGTCTTGCCCCAGGCACCTGGGACTCT  
GTTTGCAGGCGCTGCCCTCTGGGCTGAGAAGGATGCACCTTGGACAAGTCATCTGTGTTTGTGTTTTCCAGTTTT  
TCTGTACTTTTTAAGTGTTTGTGTTACCTGGTCTCATCCCCCTCCCCACACTACCCATTTGAGGGGATGGAGT  
TGAAGTCACCTGGTCACTGTACCGGCCAGTTTCGGCTACAACCTGGAGTGTCCGTAAACAATTCCTCTCACCCA  
CAAAACAATGTAAATCCAGCGATGGACTGGATTCTGAAGGCCACTTCCCACTCATAGCTGCCATGCCAGGCA  
GTGGCTGCTCTATATATAGAGTCTGCCTCCAATCCTGCTGGCTTACGCTGGAGAAGGATATGGGAGCTGGAGC  
TTTATGGATGAATAGGTGTTACCCGGATCTGGGCAGAGGGGTATCCGCTCCCCAGGTGGGCACIGATAAAGGA  
AGGTACAGGCCTCACTGGAAGTCCCAAGGCAGCCTCCAGAAATGCTCGGCTGTCTCGGGGACGCTCCAGTATG  
CCAGTCTCGGGGATTACGCTCCAGCTACTTCCAGAAACACTCAGTGTCCCTCCCTCAGGCTCTGCCTTGGCCT  
GGCCTTGTCCAGTCTACCTGGACAAGATGCCGTGTGTTGAGGCCACAGAGTAAGCCCTTGGCCGTGATGTG  
TCTGAAACACCTGTTAGGGGTTCCCTCCATATGTGAGAGCCTCTCTGGGATGAAGTTCAAGCCAGAAAACCCAGT  
CGAGGCTCAAGTTTGAATTTACAGCTTCACTGTGGCTCTGGGAAATGGCTTTCCCACTCTGTGCCTCAGTTTC  
CTTGTGTTTACAAGACTAATCCATTGACTGTTTATTAAGCACTACTGTGTGCCAAGCGCTTTTACGTGGCTTC  
TCCCTCAGCCAGCCTTGAGAGGCTGGAGGTGGTGTCACTACCTCCATTTTACAGACAAAGCAGCTGAGACCCA  
GCGAGGGGCGGAGACCTGTCCACGATACCCAGCAGGAGTCTGGCAGAAGCGAGCATCAGCCAGACCTGTTG  
TGGCGGTTGTCAATCAAGGGAGCTTGAATGGAGGGTCTGGTGTGAGATACAGCCGACTCAGCCCCAGCTCATCCC  
CCATGATGCTGTGTACCCACTGGGCACCTCTGGTGAGGAGCTTCCAGACATCAAGGCCACTCTGCTTCCCT  
TCTGAGTCCCTGTCCAGCACTGCCATAGTGTGGAGGGTAGACCAAGGCTGTGCATGATTACCCCCCTCTTCC  
ATCTGGAGCTGGCAGTGAATAAAGCCCGTATTAC

## FIGURE 847

DESSLRRRLGKELSLPRRGRGCRSGNRKSLVVGTPSPILSRPLSPLSVPTAGSSPLDSPRNFSAASALNFPFA  
RRADGRRWSLASLPSSGYGNTSPSSILSSSSSRERLHQLPFPQTPDELHFLSKHFRSSENVLDEEGGRSPRLRP  
RSRSLSPGRATGTFDNEIVMMNHVYRERFPKATAQMEGRLOEFLTAYAPGARLALADGVLGFIHQIVELARDCL  
AKSGENLVTSTRYFLEMQEKLERLLQDAHERSDSEEVSVFIVQLVRKLLIIISRPARLLECLEFDPPEFYHLEAAE  
GHAREGGGIKTDLPOYIIIGQLGLAKDPLEEMVPLSHLEEEQPPAPESPESRALVGQSRRKPCESDFETIKLISNG  
AYGAVYLVRRHRTQRFAIKKINKQNLILRNQIQQVVERDILTFAENPFVVSVMFCSEFETRRHLCMVMEYVEGGD  
CATLLKNMGPLPVDMARLYFAETVLALAYLHNYGIVHRDLKPDNLLITSLGHIKLTDGFLSKIGLMSMATNLVEG  
HIEKDAREFIDKQVCGTPEYIAPEVIFRQGYGKPVDDWAMGVVLYEFLVGCVPFFGDTPEELFGQVVSDEIMWPE  
GDEALPADAQDLITRLLRQSPDLRLGTGGTHEVKQHPFFLALDWAGLLRHKAIEFVPQLEAEDDTSYFDTRSERIR  
HLGSEDDTENDEESSTEIPQFSSCSHRFSKVYSSSEFLAVQPTPTFAERSFSEDRREEGWERSEVDYGRRLSADIR  
LRSWTSSSGSSCQSSSSQPERGPSPLLNTISLDTMPKFAFSSSEDEGVGPGPAGPKRPVILGEPDPPPAATPVMP  
KPSLSADTAALSHARLSNSIGARHSTPRPLDAGRRLGGPRDPAPEKSRASSSSGGSGGSGGRVPKASVSA  
LSLIITADDGSGGPLMSPLSPRLSSNPSSRDSPSRDPSVCGSLRPIVIHSSGKKYGFSLRAIRVYMGDSDV  
YTVHHVWVSVDGSPAQEAGLRAGDLITHINGESVLGLVHMDVVELLLKSGNKISLRTALENTSIRKVPARKNV  
AKGRMARRSKRSRRRETQDRRKSFLKKISKQTSVLHTRSRSFSSGLHLSLSSSESLPGSPTHSLSPSPTTPCRSPA  
PDVPADTTASPPSASPSSSSPASPAAAGHTRPSSLHGLAAKLGP RPRTGRRKSTSSIPPSPACPPISAPPPRS  
PSPPLGHPAPARSPRLRRGQSADKLGTGERLDGEAGRRTRGPEAELVVMRRLHLSERRDSPFKQEAQVEVSFDE  
PQEEATGLPTSVFQIAVEGEEAVPVALGPTGRD



## FIGURE 848

AGAAGAAGCTGGCCAAGGATATGGGAGCAACCACCATGSACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGCTGCTTCTCCAGGGAGGATCTGCCTACAAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGCAGGAACCAGGAAAATTCACCCCTGAGAATATTGACCCTTCCTATGCTCTCATCTCATCTATTCTGCCAGCATCGAAAAACAACAAGGTTATCATCAAGGACAAGAGTGAAGTGATGCTCTACCAGACCATCAACAGTCTCAAAACCAAGAATCCCAAACTGAAAATTCTCTTGICCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTACATCACGCTTGGAAATTCATTAACCTCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTGGATGTAAGCTGGATCTACCCAGATCAGAAAGAAAACACTCATTTCACTGTGCTGATTTCATGAGTTAGCAGAAGCCTTTCAGAAGGACTTCACAAAATCCACCAAGGAAAGGCTTCTCTGACTGCGGGCGTATCTGCAGGGAGGCAAATGATTGATAACA GCTATCAAGTTGAGAAACTGGCAAAAGATCTGGATTTTCATCAACCTCCTGTCTTTGACTTCCATGGGTCTTGGG AAAAGCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGGCCAAAGTCCTACTACA ATGTGGAATATGCTGTGGGTACTGGATACATAAGGGAATGCCATCAGAGAAGGTGGTCATGGGCATCCCCACAT ATGGGCCTCCTTCACACTGGCCTCTGCAGAAACCACCGTGGGGGCCCTGCCTCTGGCCCTGGAGCTGCTGGAC CCATCACAGAGTCTTCAGGCTTCTTGCCCTATTATGAGATCTGCCAGTTCCCTGAAAGGAGCCAAGATCACGCGCC TCCAGGATCAGCAGGTTCCCTACGCAGTCAAGGGGAACCAAGTGGGTGGGCTATGATGATGTGAAGAGTATGGAGA CCAAGGTTCACTTCTTAAAGAATTTAAACCTGGGAGGAGCCATGATCTGGTCTATTGACATGGATGACTTCACTG GCAAATCCTGCAACCAGGGCCCTTACCCTCTTGTCCTCAAGCAGTCAAGAGAAGCCTTGGCTCCTTGTGAAGGATTA ACTTACAGAGAAGCAGGCAAGATGACCTTGTGCTGCGTGGGGCCTGCTCTCTCCAGGAATTCATGTGGGATTCC CCTTGCCAGGCTGGCCTTTGGATCTCTCTTCCAAGCCTTTCCTGACTTCTCTTAGATCATAGATTGGACCTGGT TTTGTTTTCTGCAGCTGTTGACTTGTGTCCTGAAGTACAATAAAAAAATTCATTTTGCTCCAGTA

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**FIGURE 849**

MDQKSLWAGVVVLLLLQGGSAYKLVICYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNKV I IKDKSEVM  
LYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSSTRLEFINSIILFLRNHNFDGLDVSWIYPDQKENTHF  
TVLIHELAEAFQKDFTKSTKERLLTAGVSAGRQMIDNSYQVEKLAKDLDFINLLSFDFHGSWEKPLITGHNSPL  
SKGWQDRGPSSYYNVEYAVGYWIHKGMPSEKVVMGIPTYGHSFTLASAETT VGAPASGPGAAGPITESSGFLAYY  
EICQFLKGAKITRLQDQQVPYAVKGNQWVGYYDDVKSMETKVQFLKNLNLGGAMIWSIDMDDFTGKSCNQGPYPLV  
QAVKRSLGSL

## FIGURE 850A

GGATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGACAGT  
CATGAGAAAGACACAAGTTCCCAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG  
AATTCAGTGTCTGCTTTTCCAAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGCATTTCTCTGGGGA  
TATGGTGAACTCATCAAAATGCCACTGAAAAAGTCCAGACAATGTTACAGCCATTGATGAACCTTTGTATGAG  
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCTCACCTCAGG  
ATTCCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCTCTGATCCCTTTCTGCTGTCTTCGCT  
TCATATGAAACAACCTTTGCTCAAGAAGAGATTCTACTATATTGGTATAAGGGAAGAAGTTACATTTTTCAT  
TCTTCTTATGCTCATAAAGCATCTCCATTGCCAAATCTCCAGCTTTTGTCTCTATGGAAGAGATGAGGAAGAC  
TCTATAATCGTCTCAGAAGGAATAAATTGAGGAATACCTAGCATTGATACATAGATATAGAAGAGGGATTTTAT  
GGGAGAAATCAGAAGCGATCAGAGGAAACAGAAATTAGGGTATCTCCCATTTGCTCCATTTTACTGCATGAAA  
GAAGATGCTCTTGTCTTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT  
CACTGGGAAGGATTTGCCCTCTGATGATGAGAGTAATGTTGCAAGTTACCAGACCCGATTGAGAAAGTTCTCTGTGTG  
CTGAGTGAACATACATCTTTGGTGTTTACCAGGAGTGGCAGCTTAAGGTGCTGTACATTACCTCAAATCCCGATG  
AGTCTCTGTCAAGCAAGCAGCATCAGCCAAATGTGAATGATCTCTTGGTCTCATGGAATGCCCTCAGACCCAAGA  
AATCTCTCCCTAATGGACCAAGCTCTAGATCTTGATGACAAGCTACTTATGAGGCCGGGTGCTAGCATACCATCTT  
TCAACTCGAAATTTGGCCAAATCGAGCTGTGGAGTTTAGTACATCATCTCTGTCATACACAGTGCAGTCCACCAGG  
AGACGCAATCCACCACCAGCACTCTTCATCCGATCAGCAGCAGGCCATTTCATGTGCTGAAACACCAAGATCTGTG  
GAAGAAATCCTCAGAGGAGCCAGTCCAGTGGCAGCCGACTCGCTCTCCCTCCCTACGCCAGCCCGCTGAGT  
CGAAATAATCTGCTACCACCTATTGGCAGCAGCTGAAGTGGAAACATGTGAGCACTGTGGGGCCACAAAGACAGATG  
AAACCCCATGGGACTCTAGTCAGAGCTCAAAGTGCGGTGGTGGATGAACCTAATCTACAGCAGCCACAAGAAGG  
CTCCTTTTGGCCGACTTTTCCCCAGGCCCAACACAACCTCAATCATTTTGTGCTGATACACAGCTATCGTCGCTCA  
TGTGCAAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAAGTCTCAGTTTACATGGGTCTCAAAAA  
TCTCAAAGCGGGAGGAGACCAGTCTCTCGAACCAGGCAGGGACCATAGGCAAAATGAGAAGAATCTATCAGGCTG  
CAGGAACACAGAGATTTCATGAAGCAGTATTCAGTCATCAAGTGATGCAGAGCTGTATAGAGAAGTTCGATAGAA  
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAACACCATAGCAGCCAAAATGACATGAG  
TGTGTTTCTATCTCCAGTTACTGCTCTTTTCAGCAGAAATTAACCTATCCCATTTGGAAGGCGAAGTTTGTACCC  
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAAACAATGATCAGTTCAATCATATAGG  
ATTTGATGAGCTACACATACACAAAAAGCAGCAAAATCATCAGTGACAATTAACCTGGCTTCAGAATCTCTCAGC  
CTGTGTTCTATTTCGGAGAGTTGATCTCAGTTTAAAGTCATTTTGTCTGTTGAAATCTGACCTTCATCAAAATGAT  
GTCATTCTCTAAACCTCTCTTTAGATGCTCTACCTTATCAGCAGATTAATAATGGAAGGGGTGTGTAACATAAAACA  
TAAATGTTAAGCATTAGTATAAAGTAACCTCTGTAATAAATATATCGCATATTTTTTCAGATAGGACAGCTCAA  
CCTTACGATGCCCTACCTGATGCCAGGTGATGCTTATTTCTTCCATAAGTAGGTTACTGGTGCATATCTTTTTTCC  
AAATATTAATGACACCTTGCCAGATATCTCTGTCAGCTCTAAGGAAGGAAATCAATTTAAAAATAATTTGTAG  
AATCTACTATTGAGCCAGCAAGAAGTATAATTCCTTAAAGTTTAAAGAACCCCTGGCAATTAATTCAGCATAAACAT  
ATCCTATAAACAGCAGGAGAGGTTTTCAGCTTTCTGATTTTACTGTGGACCTTTTCCATAGGGCATTCATGAATGCA  
GCAACAGTTTTAATCATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTTA  
GATCTTATTAATTTTCAAGATGGATAAAATCAAAATATCAATAATACGGTAACTTTTTATTATACCAAGGTGTT  
CTAATGCCATTCATGAAGCAGATGCTTCAAAACACCTGCATTAATATATTTTAAATAAAATTAACATCTAT  
TTTTAACCTATTGTGATGCACAAACCGAAAACGTGTCTGCTTTACCTTAGAGCTAAAGGCTTACTTTATGATAC  
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTCATACCAACTCAT  
CTACATAGAAATGAAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCATATAACAACTGGATCAATATG  
GCTTGGCTTTCAAAGTTTAAAGAAATCAGAAGGGGGCTGTGAAGAAGTCATTTAGCCCAATTCCTCACCCTGTGTG  
TTTTCCCTCAAAGCCAGTGCATTTTTTTTTTAAACAAAAAAGTGGACATGTTTATACATACATGAGTTTGAACAAAT  
TGGATTTCACTCTTTGTTTGTAGTAACTCTTTTATAAAAGGGAACAGATTACAGACAAGCTCAGTGGCCCAA  
CTGAAGACATTCAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACACATACATCTCTTCATGCTA  
GGGAACACAGGCTCTCTAATTAAGAGCTGACCAAGGCTATTGTTTTCCCTTTTCTCTATCTCAACCAACCATTC  
ATATTTTTCTAGGTACATTTTGTAGGGATCATTTACAAAGCCCCGAGCACTTAATCATCATGTTTACCTTTT  
TTATTGAATTTATATACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTGATATCAGTACAAAAACCTGGCT

**FIGURE 850B**

GAGTAAATGAAGAGGAGATCTATTCAAGATCATTAAAGACCAATGTAAACTGGGAAGTATGTGGAAGATAGCTG  
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG  
CATGAACAGAACCATCTCTAGATAAGAGTTCGTGTACAGAAGATCCATGGAGGCAAGTGCTGTGAGGAAGGAC  
ACTGCCTCCCTCCACCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT  
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAGACAC  
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC  
CTAAGGACCTTTGAAGAGAAAAATTCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG  
AAGATTGTCAGTACTTTGCTTCCATCTGAGCCAGAAAAATGTCCATTTCTTTTGGCCGATCCTTTTGTCTGCTCT  
GTTTGAGAAGTTAAAACACAAGCTTTCAACAATTATCCATAGACAGAAAAGTACCTAGTGGTTGCCAGGGGCTGG  
AAAAGTGGAAATACTACTAATGGGTATGGAGTTTTTTTGGAAATGGTGAAAATGTCTTACAATTGGTGTTAATAAT  
TGTAAACTTTGTAAATACACTTAAACACCAAAATGTACACTTTAAAGGACAAATAGAAGGTATGCGGTTAT  
GTCTTAAAGAGAAGAAAAAAAATACAACATTCCAAGAAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG  
GCAACAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCTTCATCAAGCCCCAATCCTTTCT  
GCTCATTTCTGCTTCTTTGGCCTCTTCTGAGCCTGAAACAGGAACTCACATGAGACTCAGGGCCACAGGAAAT  
GCTTAAATACATACCTTTCCCAAAAGCAAAATCTATAATTCGTGTTCAATTTTATGAATATATGAATAGACAAA  
ATGAATCGAATTACATAACTATGTCTTCAATTAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTCT  
CAATTACCATTTGTTTTTACCCAATTCTATTGTCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT  
GATAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG  
GATCATTGAACTCAGGAGTTCAAGACCTGCCTGGGTAAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA  
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT  
GAGAGTTCAGGCTGAATAAGCTGTGATCATGCCTCTGCACCTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA  
AAAAAGAG

**FIGURE 851**

GITKHALNHHPPPEKLEEISPTSDSHEKDTSSQSKSDITRESSFTSADTGNLSAFPSTYTGAGISTEGSSDFSWG  
YGELDQNAATEKVQTMFTAIDELLYEQKLSVHTKSLQECCQOWTASFPHLRILGRQIIITPSEGYRLYPRSPSAVSA  
SYETTL SQERDSTIFGIRGKKLHFSSSYAHKASSIAKSSSFCSMERDEEDSIIVSEGIIEEYLAFDHIDIEEGFH  
GKKSEAAATEKQKLGYPPIAPFYCMKEDVLAYVFDVWCKVVSCMEQLTRSHWEGFASDDSNVAVIRPDSESSCV  
LSELHPLVLPFVPQSKVLYITSNPMSLCQASRHQPNVNDLLVHGMP LQPRNLSLMDKLLDLDKLLMRPGSSTIL  
STRNWPNRAVEFSTSSLSYTVQSTRRRNPPPTLHP ISTSHSCAETPRVVEEILGARVPVAPDSLSSP SPTPLS  
RNNLLPPIGTAEVEHVSTVGPRQMKPHGDSRAQSAVVDEPNYQQPQERLLLPDFFPRPNTTQSFLLDTQYRRS  
CAVEYPHQARPGRGSAGPQLHGSTKSQSGGRPVSRTQGP

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**FIGURE 852A**

GGATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGCACAGT  
CATGAGAAAGACACAAGTTCCCAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG  
AATTCACCTGCTGCTCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCCGAGTCTCTCCCTGGGGA  
TATGGTGAATCGATCACAAGTCCCACTGAAAAGTCCAGACAATGTTCCAGCACTTGTGAACTCTTGTATGAG  
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTTCTCACCTCAGG  
ATTCCTAGGTAGGCAGATATACCATCCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCTTTCTGTGTTTCCGCT  
TCATATGAACAACACTTGTCTCAAGAAAGAGATTCTACTATATTGGTATAAGGGGAAAGAAGTTACATTTTTC  
TCTTCTTATGCTCATAAAGCATCTCCATTGCCAAATCCTCCAGCTTTTGTCTATGAAAAGAGATGAGGAAGAC  
TCTATAATCGTCTCAGAAGGAATAATTTAGGAATACCTAGCATTTCGATCACATAGATATAGAAGGGGATTTCAT  
GGGAAGAAATCAGAAGCAGCTACAGAGAAGACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA  
GAAGATGCTCTTGTCTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT  
CACTGGGAAGGATTGGCTCTGATGATGAGAGTAATGTTGCAGTTTACCAGACCCGATTTCAGAAAGTTCTCTGTG  
CTGAGTGAATCATCTCTTTGGTGTTTACCGCGAGTGCCACAGTCTAAGGTTGCTGTACATTACCTCAAAATCCGATG  
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGGTTCAATGGAATGCCCTCTACAGCCAAGA  
AATCTCTCCCTAATGGACAAGCTCTTAGATCTTGATGACAAGCTACTTATGAGGCTGGGTGCAGTACCATCTCTT  
TCAATCGAAATTGGCCAAATCGAGCTGTGGAGTTTAGTACATCATCTCTGTGCATACACAGTGCAGTCCACCAGG  
AGACGCAATCCACCACCAAGCACTCTTCATCCGATCAGCAGAGCCATTTCATGTGCTGAAACACCAAGATCTGTG  
CGAAGAAATCCTCAGAGGAGCCGATGCCAGTGGCAGCCGACTCGCTCTCCCTCCCTCACCAGCCGCCCTGAGT  
CAGAAATATCTGCTACCACCTATTGGCCACAGCTGAAGTGGAAACATGTGAGCAGCTGTGGGGCCACAAAGACAGATG  
AAACCCCATGGGCACTCTAGTTCAGGCTCAAAGTGCAGGTTGGTGGATGAACCTTAATATCAGCAGGCCACAGAAGG  
CTCCTTTTGGCCGACTTTTCCCCAGGCCCAACACAACCTCAATCATTTTGTGGATACACAGATCTCGTCGCTCA  
TGTGCAGTTGAGTATCTCATCAGGCCGACCTGGCAGGGGATCTGCAGGTCCTCAGTTACATGGGTCTACAAAA  
TCTCAAAGGCGAGGCGACAGCTCTCTCGAACCAGGCAGGGACCATAAGGCAAAATGAGAAGAATCTATCAGGCTG  
CAGGAAGACCGAGATTTCATGAAGCAGTATTCAGTCACTAAGTGATGCAGAGCTGTATAGAGAAGTCTGCATGAA  
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAAAAACCATAGCAGCCAAAAATGACATGAG  
TGTGTTTCTATCTCCAGTTACTGTCTCTTTCAGCAGAAATTAACCTATCCCATTTGGAAGGCAAGTTTGTACCC  
AAAGATGCAACAGTGAATAATACCCAAATCATGCTCATGTTATCTCTTAACAATGATCAGGTTCAATCATATAGG  
ATTTGATGAGCTCACACATACAAAAAGCAGCAAAATCATCAGTGACAATATCAGTGGCTTCAGAATATCTCAGC  
CTGTGTTCATTTCTGGAGAGTTGTACTCAGTTTAAAGTCATTTTGTGTTGAAATCTGACCTCATCAAAATAGAT  
GTCATTTCTAAACCTCTCTTAGATGTCCTACCCTATCAGCAGATTAAAAATGGAAGGGGTGTGTAACATAAAACA  
TAAATGTTAAGCATATGATATAAGTAACTCTGTGAATAAATATATCGCATATTTTTCAGATAGGACAGCTCAA  
CCTTACGATGCCCTACCTGATGACAGGATGATGCTTATTTTCTTCCATAAGTAGGTTACTGGTTCATATCTTTTTCC  
AAATATTAATGACACCTTGCCAGATATTTCTCTGACGCTCTAAGGAAGGAAATCAATTTAAAAATAATTTGTAG  
ATCTCTACTATTGAGCCACCAAGTATAAATTCCTAAAAGTTTAAAGAAACCTTGGAATTTAATTCAGCATAAAT  
ATCCTATAAACAGCAGGAGAGGTTTCAGCTTTCTGATTTTACTGTGGAATTTTCCATAAGGCGCATTCATGAATGCA  
GCAACAGTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATGTCATGCCAGTTTGA  
GATCTTATTAATTTTCAAGATGGATAAATTCAAATAATCATAAATACGGTAACCTTTTATTATACCAAGGTGTT  
CTATGCGCATCTATAAGACAGATGCTTCAAAACACCTGCATTAATATTTTAAATAAAATTAATATCTAT  
TTTTAACCTATTTGTAGTCACAAACCGAAAACGTGTCGCTTTTACCTTAGAGCTCAAAGGCTTACTTTATGTCATC  
GGTATATTTAATAGTCTCAAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTCATACCAACTCAT  
CTACATAGAAATGAAAATCTCTATTGTGTTTCACAAACCATTACCAGAGTTCATATACAAATACAGTGCATCAATAG  
GCTTGGCTTTCAAAGTTTGAAGAATTCAGAAAGGGGCTGTGAAGAAGTCATTTAGGCCAATTCCTCACCTCTGTG  
TTTTCCCTCAAAGCCAGTGAAGATTTTTTTTAAACAAAAAATCGGACATGTTTAAATACATACAGTTTGACAAAT  
TGGATTTTCACTCTTTGTTTGTATGTAGTAACTCTTTTATAAAGGGAACAGATTACAGCAAGCTCAGTGGCCCAA  
CTGAAGACATTCAGCAATTAATGGCAGGACTTCAGTAAATCAGTGGCAGGACTACACATACATCTCTTCATGTA  
GGGAACCCAGGCTCTCTATTATAAGCTGACCAGGGCTATTGTTTTCCCTTTCTCTCATCTTAAACACCATTC  
ATATTTTTCTAGGTACATTTTGTAGGGATCATTACAAAGCCCCGAGAATTAATCATCATGTTTTACCTTTT  
TATTGAAATATATACACCTCTTCAAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT

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**FIGURE 852B**

GAGTAAATGAAGAGAGGATCTATTCAAGATCATTAAAGACCAAAATGAAACTGGGAAGTATGTGGAAGATAGCTG  
TCCAGCAAGTGTCTGGAAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG  
CATGAACAGAACCACTCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC  
ACTGCCTCCCTCCACCCCTCCCAAATGTACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT  
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTGAGGCTGGAAGACAC  
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC  
CTAAGGACCTTTGAAGAGAAAAATCCATTATTTCTTTCTTTCTTGAGAGCAGATTTTTCCTCCTCCTTTGG  
AAGATTGTCAGTACTTTGCTTCCATCTGAGCCAGAAAAATTGTCATTTCCCTTTTGCCGATCCTTTTGCTGCTCT  
GTTTGAGAAGTTAAAAACAAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGGTTGCCAGGGGCTGG  
AAAAGTGAATAACTACTAATGGGTATGGAGTTTTTTTGGAAATGGTGAAAAATGTCCTACAATTGGTGTTAATAAT  
TGTAACCTTTGTAATACACTTAAACACCAAATTGTACACTTTAAAGGACAAATAGAAGGTATGCGGTTAT  
GTCTTAAAGAGAAAAACAAATACAACATTCAAAGAAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG  
GCAACAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCAGCCTTCATCAAGCCCCAATCCTTTCT  
GCTCATTCTGCTTCTTTGGCCTCTTCTGAGCCTGAAACAGGAACCTCACATGAGACTCAGGGCCACCAGGAAAT  
GCTTAAATACATACTCTTTCCCAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA  
ATGAATCGAATTACATAACTATGTCATTATTAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC  
CAATTACCAATTTGTTTTTACCCTAATTCTATTGCTAGAGGTAGTAAGTACTCTGGCAGCTATAAATCACATGAT  
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACGTGAATCCCCATACCTTGGGAGGCCAAGGTGGGAG  
GATCACTTGAACCTCAGGAGTTCAAGACCTGCCTGGGTAAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA  
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT  
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCTCTGCACCTCCAGCTGGGTGATGGAGATGCCATCTCTTAGA  
AAAAAGAG

GCGGCGGTGCGGCCAGGCTGCAGCTGAGCGCTCTGCGCGCGCAGCCGGGTCTCCGCGGTGTACCACGCCGTGA  
CAGGTGCAGAGTCCGGGCTGAGGACCCACTGCAGCGCGCGCGCGCGCATGCCACCATTGCGGAGGACCGTGTGCGGA  
GATCCGCTCGCGCGCGGAAGTTTATGAGAAGACAGATGATGTTTCAGAGAAGACCTCACTGGCTGACCGAGGAGA  
AGTAAGGACTATTTTCATCAACGACGCCAGCTGCACAAAATCTGCAATAACCATGTGCAGCACTGCAAAAATACAA  
CATAATCACAATTCCTTCCAAGATTTCTCTACTCTCAGTTCAGAAGAGCTGCTAATTCATTTTTCTCTTTATTGTC  
ACTGCTGCAGCAAAATACCTGATGTGTCCAAACAGGTCGTTATACAACATCGTGTCTCTCTTTATTTATTATTAGC  
TGTGGCAGCTATCAAAAGAGATAATAGAAGATATTAACGACATAAAGCTGATAATGCAGTGAACAAAGAAACAAAC  
GCAAGTTTTGAGAAATGGTGCTTGGGAAATGTCCACTGGGAAAGGTGGCAGTAGGGGAGATAGTGAAGTGAC  
CAATGGGGAACATCTCCGACGAGATCTCATCAGTCTGTCTCAAGTGAGCCCCAAGCCATGTGCTACATTGAAAC  
ATCCAACCTTAGATGGTGAAACAACTTGAAATTAGACAGGGCTTACCAGCAACATCAGATATCAAAGACGTTGA  
CAGTTTGATGAGGATTTCTGGCAGAATTGAGTGTGAAAGTCCAAACAGACATCTCTACGATTTTGTGGAAACAT  
AAGGCTTGATGGACATGGCACCCTTCCACTGGGAGCAGATCAGATTCTTCTTGAGGAGCTCAGTTGAGAATAC  
ACAGTGGGTTCTATGGAATAGTTGTCTACACTGGACATGACCAAGCTGATGCAGAATTCAACAAAGTCCACCCT  
TAAGCTCTCAAATGTGGAACGATTACAAATGTACAAATTTTGATTTTATTTGTATCTTAATTTGCCATGTCTCT  
TGCTCTTCTGTGGGCTCAGCCATTTGGAATCGAAGGCATTCTGGAAAGACTGGTATCTCAATCTAAACTATGAG  
TGCGCTAGTAATTTTGACTGAATTTCTGACCTTCATCATCTTTTCAACAATCTCATTCTCATCAGCTTATT  
GGTTACATTAGAAGTTGTGAAATTTACCAGGCATACCTTCATAAATGGGATCTTGACATGCACATATGAACCCAC  
AGACACTGCTGCTATGGCTCGAACATCTAATCTGAATGAGGAACCTGGCCAGGTTAAATACATATTTTCTGACAA  
AACTGGTACTCTGACATGCAATGTAATGCAGTTTAAAGAAGTGACCCATAGCGGGAGTTGCTTATGGCCATGTCCC  
TGAACTGAGGATATGGCTGCTCTCCTGATGAATGGCAGAACTCAGGTTTGGAGATGAAAAACATTTAGTGA  
TTCAATCTTGTGAAAATCTCCAAAATAATCATCCAACCTGACCTATAATATATGAATTTCTTACAATGATGGC  
AGTCTGTACACAGCAGTGCCAGAGCGAGAAGGTGACAAGATTATTTATCAAGCAGCATCTCCAGATGAGGGAGC  
ATTGGTCAGAGCAGCAAGCAATTTGAATTTGTTTTCACTGGAAGAACACCCGACTCGGTGATTATAGATTCACT  
GGGCGAGGAAGAAGATAGTAATTTGCTCAATGTCTGGAGTTTACCAGTCTAGGAAAGAATGTCAATGATTGT  
TCGCACCTCCATCGAAAAGTTACGACTCTACTGCAAAGGAGCTGACACTGTAATTTATGATCGACTGGCAGAGAC  
GTCAAATACAAGAAATTACCCTAAAACATTTAGAGCAGTTTGCTACAGAAGGGTTAAGAACCTTATGTTTTGC  
TGTGGCTGAGATTTACAGAGCGCACTTTCAGGAGTGGCGAGCAGTCTATCAGCGAGCATCTACATCTGTGCAGAA  
CAGGCTACTCAAACCTCGAAGAGAGTTATGAGTTGATTGAAAGAATCTTCAGCTACTTGGAGCAACAGCCATTTGA  
GGATAAATACAAGATCAAGTGCTGAAACCATGAAACGCTAATGAAGCAGACATCGAAATCTGGATCTTAC  
AGGGGCAAGCAAGAACTGCCATTTAACATCGGACACTCTGCAAACCTGTTGAAGAAGAATCGGGAATGATTGT  
TATAAATGAAGGCTCTCTTATGATGAAACAGGGAACTCTCAGTCGTCACTGTACTACCTTTGGTGATGCTCTCCG  
GAAGAGAATGATTTTGTCTTATAATGATGGGAAAACCTCAAATATGCTTAACTTTGGAGTACGACAGTA  
TTTCTGGACTTAGCTTTGTGATGCAAAGCTGTCAATTTGTGTCGCGGTTTCTCTCTTCAAATACTGAAGTTGT  
TGAGATGTTTGAAGAACAGTCAAAGTCGTAACGCTTGCAATCGGTGATGAGCAAAATGATGTGCAGCATGATACA  
GACAGCGCTAGTTGGTGTGATGCTCAGTGGCAATGAAGGCTCGGAGGATTAATCTCTGACTCTCCATAGC  
TCAGTTCAAATATTTGAAGAATTTACTGATGATTGATGGTGCTGGAATATAACAGAGTCTCCAAGTGATCTTT  
ATACCTGCTTACAAGAATATAGTGCTCTATATATCGAGATCTGGTTTGGCTTTGTTAATGGCTTTTCTGGACA  
GACTCTTTTGAAGATGGTGATAGGTCTCTATAACGCTGATGTTTACAGCAATGGCTCTTTAACTCTTGGAA  
ATTTGAGAGATCATGCAGAAAAGAGACATGTTGAAGTACCCTGAATATACAACAACTCTCAGAATGCCCTGGA  
CTTCAACACCAAGGTTTTCTGGGTTTCAATGTTTAAATGGCCTCTTCCACTCAGTTATCTGTTTTGGTTTCCACT  
AAAAGCCCTTCAGTATGCTCATGATTTTGGAAATGGGAAACCTCGGATTTATCTGCTACTGGGAAACTTTGTGTA  
CACTTTTGTGGTGATAACTGTGTGTTTGAAGCTGGATTGGAGACATCATATTTGAGCATGGTTCAGCCACATAGC  
GATATGGGGAGCATCGCATCTGGGTGGTGTGTTTTGGAAATCTACTCATCTCTGTGGCTGCCATTTCCGATGGC  
CCCTGATATGTGCAGGAGAGCGACGATGTTGTTCAAGTTCTGGAGTCTTTTGGATGGGCTTGTATTATCCTCTGT  
GGCATCTCTGCTCTTGTGTGGTGACAAAGTTATCAAGAGGACTGCTTTTAAACATTTGGTCTGATGAAGTCA  
GGAGCTGGAGGCAAAATCTCAAGCAACGAGGACGTTGACTTGGAAAGTCTGACCGAGAGGGCGCAACTGTCT  
CAAGAAGCTCTTTAAGAAGAACCAGTGAACCTTGTAACGCTCTGAATCTTGAACAAAATCTGCTCCATGGGTA  
TGGCTTCTCAAGATGAAAATGGAATCGTTTCACAGTCTGAGTGATGAAGAGCATATGATACCACGAAACAGAG



GCCCCAGCAATGGTGAATGGGGAGAGCCTGAAAAGGCAGGCTCTGTTACCTCTCTAAGGAGAGCTACCAGGTTGTCA  
CCGCAGTCTGCTAACCAATTCCAGTCTGGTCCATGAAGAGGAAAGTAGATCTGAGCTCATCTCGCTGATGGACA  
TTCAGATTTCATGATATATTATAGACATTAAGCACTGTGCAACTGTACTGTAAACCATCTCTTTTGGATTTTTTAA  
GGTATTTGCTAAGTCTTTGTAAACGGAAATTGAAAATGACCTGGTATCTTCCGAGGGCTTTCTTAAACGGAGA  
ATAAGTCAGTATTTCTATGGCAATTACTGTGGGGCTGTAAGTACTGCTGAGTTTATTGGCTGTACCACAAGGTAA  
CAACCATTTAAAAACTCTAAATGATATTTAGTTAAAGGGGACTCTGGTATCCAGCACTAGATTTCAGAGATATGCT  
GAAACAACCCAGCATCTCTTAAGGAATCTGACTACCTTCTCGAGCAAAATTTCTAAACAAGCATTTTGTGCCAAAA  
TTGCTCTGATAAATGTTTGGCAAAGAGGTTTCAGTAAGTGTTTTTCTAGTTTCAGTAGTCATATGCCAGAAATGTA  
AGAGAAGTTTACTTCCAGTTCCGCTGTGAAGATCTGCATGCCTGACTTTCCAAATGTAAGAGTGATTACAAAAA  
TGAATATTTCAAGGCATTTGCTCAATAATCGGTGATGTTGCACCTTTGGCCTTACAAATGCTTCTTTGTTGTTT  
GTCGTGTTTATTGTTAGAGGACACACGTGTTAATGTGACTCTGTTGTTATGACACTGATTTTTCAAACATAGTA  
TGTTTCAGGTATTTCTGATGAAGTTTCATCATCATTTAGATTTTTCTAAAAATCTGGCTAATGCAGTAGATTGAG  
TGATGTCATTTTGTCTTAAAGTTTTTCCCTCTAAGAAACATATGCTACGTATTTACGTGGGATTTCCAAAGCTTC  
TGTTGCAATATTTGGAATAACATGTGAGATAAATGCATGGGCTTTTGCTGTTGTTCCAGTTCCCACTAGAGATG  
CCTGTGCTTTGTGTAGCACAACCCAGGTTATGGTGACTGCCCTTACTACTGAAGACTGAAAATTTATTCACAGT  
CACTCATCAAAATAGTTCCCAAAATTCGTACATGCTGCTTATTGGGACAAATAGGTAGTACATTTTCCCCATTTA  
AAAAATGCGGATTTTACTCAGGCCGGTAACTTTACAGTCAAGGACACGTTTCATCATGAGTAGCTTTTGTAGTA  
TGTTTTAAATGTATCTTCAGTTCAATTTTTCAGCATTTACAAGACATCTGAAAATGGCTATTTTGCTACCA  
CAGTAAATGAAGGGGCTGTTTAAAAACCAACACAGTTTCTACACTATTTTTTAAATAACTTTTCATTTGAAA  
AAAAGGAATTAGTTTTTCAGATACACTTCAGAGATTGAAGCAAACTATTTGCTTTTACTCAAAGCCGTGCTTGGC  
TTTACATGGCACTTACCAGCAAAATAGGTAGAACTTTCTCTTTTAAAAAAAGTCAACTAGAAATGAGAAGAGGTGA  
TTTTTTTTTCAGATCGCTTCTCAGTTTAAATATTTTCACATCTTTTACCCTTTTCTCAATCTAGATTTAAAT  
TAGGATATATATTCATTTCCCTGTCTGATTTGTAGTCTCCTTAGTTACAGTATGCTTCCATTTTCTACAAAA  
AGAGGTTATAGCACATACATAATTTCAACCTTAAGGGAACACAGCTTTTACATCTTTTACTTCCCAAGCCCTC  
CTGTTTGGGGTACAGATTGAGAGAGTCATGAATCAACACATCTAGCAAGACCACAGGTGTGAAGAGTCTAAGATCG  
TCTTCAAAATCTGAAAGTCCAGCTTTTACCTGTCCAGTGAATGAATATTCAGAGCAGCTTTTCTGGGCTTCCC  
AGTGGTGATAGCTGAGGTCAAACCAAAAAATAAGAAAGCAAGAGTGAAATGCACCCCTCCAGAGAAACACTTT  
GTAGTGTTTAAATCTGTTAATAGAGAAGAGCTGCTTCTGTTTGGCCTCACTTCATCAGTGGCACCTCTCTCGACA  
ATTTTTAATAAAAAACATTATGGATATAATAGAAGTGGATTTTCTGACTTAAAAATGTAAAGTTTATTAAATCT  
TGAACGTGGATTGTTTCTGTGGAGCTCTTAAACATGAGAAGAAATCACTACGGTTGATAATGTGTAACATGATCT  
GAAATGTGACTAAATTTGAGCCTCTTTTGTCCCATCGTCTCTGTTTTGAATTTATGACATGTGCACTCTTTGGCTT  
CTCGGGTGAGACTTGGGGTTTGAGGACAGGGAAATGACCTTCTTGGTGAACCTTAAAAATACATTCGAATTCG  
AGTGACTTTACAGTGTTAAATTAGAGAAAAATAGTCTGATTTTTTAAACCTTCTTAACTGGAAAAAGTCACATG  
GTTTTACCAGGATGAAATAACAGTCAATGTGACTTTTAAACATGTGTTTTTTTGAATAAGGGGCAGCTACTCT  
TCAATTAAGAGTTCCCTTATAGGACTCTGGCAAAATGCTAACACAGTGTGCTTTTACAAATGTTTACAACTCAGACA  
TACGACTTATAATAGAAAAATCCTCATTCTATTAGCATTGAAAAGCTGGAAGTGTCTTCTTAAATGTGAATAGTA  
TACAGTGGTATTGAGCATGGACTTTCTAAATGTTTTATATATACATATAAAAAATATTGGTGTCTCACCCAG  
AAAGTGTTATATTGATGATATTTTAAATATGACAAATGAATTAAGAAATGAGAAATGAAATTTTAAATGATATAGT  
ACTTCCCGCTCTCCCACTCCACTCTGTGCTCTAATGTGAGACTGCTTCAGCAGTGTTGCTAAGTTAATGAAAA  
CTTTTTCTAATCAAGTCAGGTGAATGTGTTTCTGCTAAATAATGTTAGCCATTTACATGAATTTGATGGTCATT  
AAATGGAATCAGTGATTTCCCTTTAATTTCCAGAGGGGAAATGAATTAAGAAATCAGTCAGCATTTCTGATCATTT  
AAATTTTATACTTTAATTTTGGCGTTTCAGCATTCTAAATATCCAATGTGAAAGTCACATGATATTTGTTTGA  
TTGCGTGCACTGTACAACACTTACAATTTGTCTTTTAAATGTTTTCTCGGAAATGATCTAGTCAGAGAAAGTA  
ATAGATTGTAATTTATCATGTTTTTAAATATGACAAATGTAATTTACTACAAAGCTAAATATCTGTTTATT  
TTTGTGCACTTGCCCTTTGATAGTCTCGGTTTTTAAACCTATTAAAGTGATAATCTTACAAATAGTCATCTACA  
AAATTTTATGGAGAAAGTGCCACGCCATTACATCAGTGGACCAAGAACTCTTTTCTTAATGATTAAGGTAAAC  
ATCATGAGTTCAGTGCCCTAATAAATGCTTTTTTAAATGATGAGCATTTCTATAATGACTCGTAAGATACCATAGTC  
TGATTTTTCTCACAATTAATAACTGAAGTCACCTGTGTAACTAGTTATACCTTTGCTGCAATTTAATTAACCTT

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**FIGURE 853C**

CAACAGCTATTAAAGTGGAAATGTAAGTTAAATTTTGAAGGAAAGGAAATAAATGTTTTCCATATTTTCGTCCTGAT  
TTACTTTCTGTATGAGAACAGCTGTGTTTTTGATAGGTTTATGGTTTGCATGAGTTCATATTTAAAGTGATCCAG  
GCCAATGCATGGCTATTGCTGTAAATCTTGATGTTTATTTCTGCCTTGTAAGTTCTATCACGGCTACCTGGAA  
TTTAAAAATTCAGTAGACAAATTAATTGGTCCTCTGCACAACTTTTTAATAAGTAGATTATTTACAAAGAAATT  
TGAACAAATTTAATTGAATCTTTTGTTTAGCTTGCCCTCTAAGAACTTTTCTTAATAAAGCTCCCAAACTTCTCA  
GCAATAAATCTCCCTTAAGTAGGAAAAGTAGATTTTCATATTTGCTTACTTTGAATTAACAGCAACTTTCCACAG  
GTAATCTGTTCTTGCAAAGATGTGAGCAGAATAGTTAAAAATAATTTTTATGTTTCATGGTTCTAAATGGAA  
GCCATAAATGCAGTAAATACTATCTGTTGTTAACTACTTTAATCGTCATTTTTTACATTTTCAAGTTTATTAGG  
TTAAGAAAAACAGGGCAGCCTTGGAAGGCAGCTACTACAGAAAAGTGCAGTTTTGCGTTAAAGATAAAGTAGTAT  
TTTCAGCTCCCTGAAAAACCATTCCTGCTGAACTGCTGTAGAAATTGTGAAGCTGCATGAGTGGAGAGTATTGA  
ATCTGTGGTTATAGTAGTTTCTCAGGTTTGTTTATCTTGATGTTTGATGCACGTGTTTTATAGTTATTAAAT  
TGAGTAATATTATTTCTATGCAGTGTTATGTGTCATTGGCCTTTTGTAAGTGTGATGTTTTAAAGTGCAAATTT  
TAAACATTTTGTCCTCTAATTGTTATTAAAAATGAAATAAACTTTACCATTACTTAAAAAAA

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**FIGURE 854**

MPTMRRTVSEIRSRAEGYEKTDVVSEKTSLADQEEVRTIFINQPLTKFCNNHVSTAKYNIITFLPRFLYSQFRR  
AANSFFLFIALQQIPDVSPTIGRYTTLVPLLFILAVAAIKEIIEDIKRHKADNAVNNKQTQVLRNGAWEIVHWEK  
VAVGEIVKVINGEHLPADLISLSSSEFQAMCYIETSNLDGETNLKIRQGLPATSDIKDVSLSMRISGRIECESPN  
RHLYDFVGNIRLDGHTVPLGADQILLRGAQLRNTQWVHGIVVYTGHDTKLMQNSTSPPLKLSNVERTINVQILI  
LFCILTAMSLVCSVGSIAWNRHRSKGDWYLNLYGGASNFGLNFLTFFIILFNNLIPISLLVTLLEVVKFTQAYFFIN  
WDLDMHYEPTDTAAMARTSNLNEELGQVKYIFSDKTGTLTCNVMQFKKCTIAGVAYGHVPEPEDYGCSPDEWQNS  
QFGDEKTFSDSLLLENLQNNHPTAPIIYEFITMMAVCHTAVPEREGDKIIYQAASPDGALVRAAKQLNFVFTGR  
TPDSVIDSLGQEERYELNVLEFTSARKRMSVIVRTPSGKLRLYCKGADTVIYDRLAETSKYKEITLKHLEQFA  
TEGLRTLCPFAVAEISESDFQEWRAVYQRASTSVQNRLKLEESYELIEKNLQLLGATAIEDKLQDQVPETIETLM  
KADIKIWIILTGDKQETAINIGHSCKLLKKNMGIMIVINEGSLDGTRETLRHCCTTLGDALRKENDFALIIDGKTLK  
YALTFGVRQYFLDLALSCKAVICCRVSPLQKSEVVMVKQVKVVTLAIGDGANDVSMIQTAVHVGVISGNEGLQ  
AANSSDYSIAQFKYLKNLLMIHGAWNNRVSKCILYCFYKNIVLYIIIEIWFAFVNGFSGQILFERWCIGLYNVMF  
TAMPPPLTLGIFERSCKENMLKYPELYKTSQNALDFNTKVFVHCLNGLFHSVILFWFPLKALQYGTAFNGKTS  
DYLLLGNFVYTFVVITVCLKAGLETSYWTWFSHIAIWGSIALWVVLGIYSSLWPAIPMAPDMSGEAAMLFSSGV  
FWMGLLFI PVASLLLDVVYVKIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVNLIRSE  
SLQQNLLHGYAFSQDENGIVSQSEVIRAYDITTKQRPDEW

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCACGCGCGGGCCGTTGAGCGGGAG  
CCCTCAGTTCCTCGGCCAGGACACGGTCTGGGCCGCCGAATCTCCGGCCGAAGAGCGCGCGCGGACGCGGGGAA  
AAAAATGAAGAATGAAATTTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA  
AGAGCGCAGTTGAGAGGTTTCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAACTACTGGTATCCAGA  
AAAACCATCGAAAGGACAGGCCTACAGATGTATTCTGTCAATAAAATTTAGAGAGTTGATCCTGATGTCCTGAA  
AGCCTGTGAAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG  
TGAGGTGTGCTGTCTGAGAGATGGGGTTTACCATGTTGGCCAGACTGCTCTCAAACCTCCTGACCTCGTGATCCG  
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGGCCCTCTCTTTTGATTATGTA  
TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAAGGATGAGATCTCCAGGAA  
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTAGGATCCTCTCTTTCAGATGAAGAAACAAGTAA  
GGAATGGAAGTGAACCCAGTTCCGGTGACTGCAGCCGAAGTCCTGTGTACCAGATTTAGAACTTATATTTCC  
ACCTCTTCCAATGTGGCACCCCTTTGCCAGAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA  
TCCCTCCTCGTTCATTGTTATCCAAATCAGGGAAGAAAAATAAACCATATCGCCCAATTCAGTGACATG  
GGTACCTCCTCGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACTAACTTCG  
TTTTTGATTGTGTTGGTGTGATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAAGTTAAAGTTCTT  
ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT  
AAAAAATATATGCATTTAGATATTGATATAGTTTGAGAAATTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA  
ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTG  
TTTTAGCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAGGAAATCTATTTTATGTCG  
TTGTTTAAGAGAATTGTGTAATCATGTAGTTGCAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAA

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**FIGURE 856**

MKNEIAAVVFFTRLVRKHKDLKKEAVERFAEKLTLILQEKYKNHWYPEKPSKGQAYRCIRVNKFQRVDPDVLKA  
CENSILYSDLGLPKELTLWVDPCEVCCRDRGVSPCWPDSCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG  
EKNNAFIVASFENKDEKDEISRKVTRALDKVTSYHSGSSSSDEETSKEMEVPKPSVTAASPVYQISELIFPP  
LPMWHPLPRKKPGMYRGNGHQNHYPFPVFGYPNQGRKNKPYRPIPVTVVPPGMHCDRNHWINPHMLAPH

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**FIGURE 857**

AATTTGGGGCCAAAGATTAAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCATGGGGCTGATGGTG  
TCTGAGCTAAAAGACCATTITTTTGTAGACACCTACAGGGGTGTAGAAAAGAGAAAATTGAACAGATGGTTCTGGAC  
TACATTTCAAACCTGCTGGATCTCATTGGCCACATCGTAGAAACCAATTGGAGGAAACATAATCTTCATTCTCTGG  
GTTCTCCACTTCAATAGTCGTGGCAGTGTCTGAATTTGCAGTTTTTCACATCATGACCAGGATTCTGGAAGCT  
ACAAACAGTTTGTITTTTACCTCTGCCTCCTGGTTTTTCATACTCTGCACACCATCTCGGGGTCCAGTGTCTCCCT  
TTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTGCTTCTCACTGAAACAGCTGTGATAAGGCTCATGAAA  
GATCTGGATAATACAGAGAAAAATGAAAAACTGAAATTCAGTATCATTGTGCGGCTTCTCCGCTTATTGGGCGAG  
AAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTTCGCGGAACACGCTGACGCGACTGCTTCAG  
AACTATAAGAAACAGCCTCGGAATTTCTATGATTAAACAAGTCATCGTTCAGTGTAGAATTTCTGCCTCTGAACTAC  
TTCATTGAAATTTCTGACAGATATAGAGTCTCCTCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGAT  
GCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTATGAAAAAGAAAAACGCAATTGG  
ATCTGCTGCTGCCATTTTAATCTTGCTCATTAAACCTTACTCCTCTGAGAATCTTTTAAACAATATTTAAAAATTGGT  
AACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTCAGGTGAGTACAGTTTACAGACAGAAGTCTGTAT  
TCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGCCTAAGAAGGCATACAGT  
GGCATAAACGATGCTCTTCTCTAGTAGCTTAATAGGCCACAAGCTAGTTTCTGTTGCACCTTGAAATAAAATATGC  
TTTAAAAATGTAGGGAACAGTGCTTAGAAAAAGCAAAACTAGGTGTGTCAATTGAAATAATAGGCATAAAAAATTA  
ATGTTACATAAAGAACTATTTGGAAAGAGGGTCTTTTTAAAACTGAATTTGTACTAATCAGATTTGCCATGT  
CCCAGTCCAGAATAATTTGTACTTAGTATTGTCAGCAGGGTTGTCTTTGTGAATTCAGATGAAACATATTTATT  
TTTTTTTATTATAAAAGTTGATTTAGGAATATTTTGTGAGTCATTAACCTGAAACATAAAAAAAAAA  
AAAAAAA

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**FIGURE 858**

NLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQCVEKKKIEQMVLDIYISKLLDLICHIVETNWRKHNLSW  
VLHFNSRGSAAEFVAFHIMTRILEATNSLFLPLPPGFHTLHTILGVQCLPLHNLHCIDSGVLLLTETAVIRLMK  
DLDNTEKNEKLKFSIIVRLPPLIGQKICRLWDHPMSSNII SRNHVTRLQNYKKQPRNSMINKSSFSVEFLPLNY  
FIEILTDIESSNQALYPFEGHDNVDAEFVEEAALKHTAMLLGL

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FIGURE 859A

GGCCGCGAGTGCATCTTCCACGAACCTAATTCACTCTCCAGCAAAGGACACATCTCTCCAGCAAAGGACACCTC  
TCTCCAGCAAAGGACACCTGCAGAGATGTCCCAGTCTTCACTTCTATGTTCTGCTCCCTCTGGCCATGAGGGGGC  
AGCCTCTGGACACACTCGGAGGAACTGCAAGGGAACCTGCCAGAGCTCGAGGCGCTCGAGACTGAACTGTGTCTA  
CAACGTGAACCTGGACAGTGAAGCCCTCCCCAGTGTGAGGAGACAAAGAGCTGATGTGGCTGTTTGGTGGCC  
CTTACTGCTGGATGATGTTTGTCTGGGAGTCTGGTCTCTCTGGTCCCAATGACCTGTCTGTGGAGTCTGGGGC  
CAGGCTGGAACCTTCTCCACCCCAACTCCACCAACATCGTGTCAAGTGTCCCGCCGCTAGGCTGGGCTGGGGCTGTGGA  
TCGTGTGAGAGCACCCCGGCTACCGGCTCTCGTTTGGCCACCCCGCTCAAGTGTGAGTGTGAGGAGCAATGCTCT  
GGTACCCCTGCAGCAGCCGATGACAGAGCAGCACTTCCCCATCCCATCCAGAGTTTCTCCCTGAGAGCATGCC  
GGAACCCCTCAATGGCCCTATCAATATACTGGGTGAGGGCCGGCTTGCCTGGAGAAGGCCAACAGGAGCTTGG  
TCTGGCTTTAGACTCTTGGGACCTAGACTTCTACACCAAGCGCTTCCAGGAGCTACAGCGGAACCCGAGCATGT  
GGAGGCTTTGACTTGGCGCAGTCCAATAGCAGACAGCCGACACTGGTCTTCAAGGGCCAGCTTCCAGTGA  
TGGCAGAGAGTGGTGCATCTACTGTTTGTAGTCCATCATGAGCACCCAGGAATCCTCGAACCCCAACAACGTCTC  
CAAAATCTGTGATAACAGCAGTGCATCTCAGGGAAGGAAGTCCGATCTTACGGCTGAGGACCCACACGGCC  
AAGCCGCTTCCAGCAACAGCAAGGGCTGAGACATGTTGTCTTACAGCAGAGACTCAACAATTTCCACAGAGGT  
ATGCCCCCTTAGTGGTGAACCACTGGCACAGGGGGCCGATTCGAGATGTCAGTGCACAGGCCGGGGGCCA  
CGTGGTGGCTGGCATCTGCGGCTTATGCTTTGGAATCTGCATATTCAGGTTACAATCTGGCTGGGAGGATCT  
AAGCTTCCAGTATCTTGGGAATTTTGGCCGGCCCTGGAGGTTGCCATTGAAGCCAGTAATGGAGCTTCTGACTA  
TGGCAACAAGTTTGGGGAACAGTGTGGCTGGCTTCCGCCGCTCTTGGGCTCCAGCTCCAGACAGGCCAGGC  
GCGTGAAGTGGATCAAGCCCATCATGTTTGTGGGGGCTTGGGTCCATGGAAGCTGACCACATAAGCAAGGAGGC  
CCAGAGCCAGGCATGGAAGTTGTAAAGGTTGGAGGTCCTCTACAGGATTGAGTTGGAGGTGGAGCTGCTCT  
ATCTGTGAGGTGCAGGGAGATAACACCACTGACCTGGACTTTGGGGCTGTGCAGCGAGGAGACCCGAGATGGA  
ACAGAAGATGAACCGTGTGATCAGGGCTTGTGTGGAGGCCCAAGGGAACCCCATCTGCAGCTTCTATGATCA  
CGCGCTGTGGCAATGGCAATGTCTCTAAAGAGCTGAGTGACCCAGCTGAGCGGCTATTTACACAGCCGCTT  
CCAGCTTGGGGCAACCACTGATGAACTGGGAGGCTGAGTACAGGAATCAAAATGCTCTTCTGTCTGT  
GAGGTCCCCAACCCGGGACTTCTGACTCATGTCAAGTGCCCGTGAACGTGCCCCGGTGTCTGTGGGACCAT  
CACTGGAGACCCGGAATAGTGTGTGGAGCATCGGGAGTGTCTGTGAGAAGAAATGGCCAGGGGATGCCCC  
CCCGACACCCCGCCAAACCCCTGTGGACCTGGAGCTCGAATGGTGTCTGGCAGAGTGCCTCGGAAGGAGTTCTT  
CCTGCAGAGGAAGCCCCCATGCTGCAGCCTCTGGCTTGGCCCCAGGGCTGAGCGTGACCAAGGCTCTGGAGAG  
GGTTCTGAGGCTGCCCCCGTGGCCAGCAAGCGCTACCTCACAATAAGTGGACCGCTCCGTGGGAGGCTGTGT  
GGCCAGCAGCAGTGCCTGGGGGCCCCTGCAAATCTCTGGCAGATGAGTGGGTTGTGGCATGAGCCATGAGGA  
GCTCATAGGGGCTGCCACAGCTTGGGGAACAGCCAGTCAAGAGCCTGCTGGGACCAAAAGTCCGCCCGCGGCT  
GGCCGTGGCCGAAGCCCTACCAACTGGTGTGTTGTCTGGTCACTGACCTCCGGGATGTGAAGTGTAGCGGAA  
CTGGATGTGGGACGCCAAGCTCCAGGGGAGGGCGCAGCTTTGGCGGATGCCGTGTGAGGCTATGGTGGCAGTGAT  
GGCAGCCTGGGTGTGGCAGTGATGGTGGCAAGGACTCCCTCAGCATGGTGTCTGGGTTGGCATGAGACCTGT  
CGGGCTTCTGGGTCTGCTGAGTCTGACGCTATGCCGTGTGCCAGACATCACAGCACTGTGACCCCAAGCT  
CAAGCATCTGAAGGGAGAGGCCATCTGCTCTATGTGGCTGTAGCCCTGGGCAGCACCAGGCTCGGGGGCAGAC  
TGTGGCCAGTGCTTCTCCAGCTTGGGGAACACCTCCAGACCTGGACCTTCTGAGAATTTGGTGGCGGCTT  
CAGCATCACTCAGGGGCTGCTGAAGAACCGGCTCTCTGTACGGCCAGATGTCACTGACGAGGCGCTGTAC  
ATGCTGTGTGAGATGGCCTTGTGTGAAATGCGGGCTACAGGTGGATGTGCTGTGTCCCAAGGTTGATGTCT  
GTCTGTGTGTTTGTCTGAGGAGCCAGGCTCTGTGTGGAGGTGCAGGAGCCAGACCTGGCCCAAGTGTGAAGCG  
TTACCGGGATGCTGGCCCTCCATTTGCCCTGGAGCTGGGCCACACAGGCGAGGCGGCGCCACCGCATGGTCCGGT  
GTCAGTGAACGGGGCTGTGGTCTGTGAGGAGCCTGTGGGGAGCTGCGAGCCCTCTGGGAGGAGCAGGTTTCCAC  
GCTGGACCGGCTACAGGCAGAGCCTCGCTGTGTGGCAGAGGAGAACCGGGCTGAGGAGCGGATGGGGCCAG  
CATTTGCTGCCCCCACTTTCCCAAAGCCCTCCGTGCCCGTGAGCTGGGTGTGGTGTCCAGGCCCGGAGTGCCTAT  
CTTGCAGAGGAGGGCAGTAATGGAGACCGGAGATGGCCGATGCCCTTCCACTAGCTAGGTTGGGTTGAGGATGGGA  
CGTGACCATGACAGGACCTCTGCTCTGGGCAATTTGGGCTGGACATTTCCGTGGCGTGGCTCTGTGGGCGGCT  
CAGCTATGCAGATGTCTGCTTGCCTGCAAGAGGGTGGCAGCTGTGTGACCTTTTATCCAGGGCTGGGGCTGA  
GCTGAGCGGCTTCCGGAAGCGGGCCAGACACTTCAAGCTGGGCGTGTGTAATGTCTGTCAACTGTGCGCTGTCT



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**FIGURE 859B**

CGGCTGGTGGGAGGCGACCCCAATGAGGATGCTGCAGAGATGGGCCCTGACTCCAGCCAGCCCGGCCAGGCCCT  
TCTGCTACGCCACAACCTGTCTGGGCGCTACGAGTCTCGCTGGGCCAGCGTGCCTGTGGGGCTGGGCCAGCCCT  
GATGCTGCGAGGGATGGAGGGCGCCGTGCTGCCCGTGTGGAGTGCACACGGGGAAGGTTACGCTAGCATTTTCTTC  
TCCGGAACCTCCAAGCTCAGATTGAGGCCAGGGGCTTGGCTCCACTGCACTGGGCTGATGATGACGGGAACCCAC  
AGAGCAGTACCCCTCTGAATCCCAATGGGTCGCCAGGGGGCGTGGCTGGCATCTGCTCCTGTGATGCGCCACCT  
GGCTGTGATGCCCTACCCCTGAGCGGGCCGTAGGGCTTGGCAGTGGGCATGGCGACCCCTCCATTTGATACTCT  
GACCACCTCCCCCTGGCTCCAGCTCTCTATCAATGCCGAACTGGACCTGGAAAGGGAGCTGCTGACTGGCCAC  
AGGGGCTCACCTGGGCCCATGGCTTTTACCCTAAGTGGGTCTGCCCTTCCCCATGACCTTCAGGAGCACCC  
CATATTATTTCCAAAAATATCTTGGACAGACAAGGACCAAAATGCCAAAATCTCAGCGGACTCGATGATCTGCCT  
GCTGATGTTCTTCTGTGGCTGTGTCTATTTTCAGTTCTGCTCTAACATGGCATGCCCTTTCTCAGCCCAGGAAA  
CAGCATGTGGTTCAGAGAAAAGCGACAAGGAAAGTTAGGACTCCTGAGGTCCGAACAGGGGCTTCTGTGGCC  
CACTTCACAACACCCAGTGATCACCGGTGTGCAATTGGCTCCTTGGCTCTGAGGGATGTTTTGCGCTCCCTTTTC  
TCATCATTGGGGTTAGCGGGTGCAGACAAATTCAGCAATAGTATGCAGATCAGCCCTCACCACCTCATTGTTCT  
CATCTGGAAGTGAACCTTTCTGGATTTCTCTTGAAGTGTCTACACTGCCTGAATGTAAGGAATTGTTGCTTGTGG  
AAGTTTCTCAGCGTTTCTGGCTGTCTTAGGGCTGGCTCAGAACCCAGCATTCCTGTTATTTGCTTCTAAATTAG  
CAGCTCTCTTTTTTTTTTTTTTTTTTGTAGGCGAGTCTCACTCTGTACCCAGGCTGGAGTGCAGTGGCGTGATCTCG  
GCCACTGCAACCTCTGCTCCTGGGTTCAAGCAATTTCTCTGCTCAGCCTCCCGAGTAGCTGGGAGTACAGGC  
ACACACCACCAACCCAGCTAATTTTGTATTTTAGTAGAGATAGGGTTTACCGTGTCTCCCAGGCTGGTCTC  
AAACTCTTAACCTCAAGTGATTCGCTCGCTCGGCTCCCAAAGTGTGGGATTACAGTGGGAGCCACTACAGC  
TGGCCCAGCAGCTCTGTTTCTGATAGAGGTGGTGGGGCTCTCATCCCTAGATCCTAACCTTTAGTATGCTGGA  
ATTCTACTCTTCACTTACTGCAATTGACTGTTGTTGATTAGTTATTATTGCAAGCACTGCCACCGGCTCAGGGA  
GTTTATGTGTAATGAATAAAAAATAAGCTGTGTATAACACTTAGCTCAAGCCACGCATGTGTGAGGCATTG  
GTATGTATCTGAATTAATTTCTCACTAAAATTAGCAAAGGACTTGATAGCCTCTCCCCGCTTTTCAATAAAGGA  
TGAATGAAGGTTG

**FIGURE 860**

AASASSTNLIHLSSKGHISPAKDTSLQQRTPAEMSPVLHFYVRPSGHEGAASGHTRRKLOGLPELQGVETELCY  
NVNWTAEALPSAEETKKLMWLFGCPLLLDDVARESULLPGSNDLLLEVGPRLNFSTPTSTNIVSVCRATGLGPVD  
RVETTRRYRLSFAHPPSAEVEAIALATLHDMTEQHFFHP IQSFSPEMPEPLNGPINILGEGRLALEKANQELG  
LALDSWDLDFYTKRFQELQRNPSTVEAFDLAQSNSEHSRHWFFKGQLHVDGQKLVHSLFESIMSTQESSNPNNVL  
KFCDNSSAIQGKEVRFLRPEDPTRPSRFQQQQLRHHVFTAEATHNFPTGVCPFSGATTGTGGRIRDVQCTGRGAH  
VVAGTAGYCFGNLHIPGYNLPWEDLSFYQPGNFARPLEVAIEASNGASDYGNKFGEPLAGFARSLGLQLPDGQR  
REWIKPIMFSGGIGSMEADHISKEAPEPGMEVVVKVGGPVYRIGVGGGAASSVQVQGDNTSDLDFGAVQRGDPEME  
QKMNRVIRACVEAPKGNPICS LHDQAGGNGNVLKELSDPAGAI IYTSRFQLGDP TLNALEIWGAEYQESNALL  
RSPNRDFLTHVSARERCPCFVGITIGDRIILVDDRECPVRRNGQGDAPPTPPTPVLDLEWVLGKMPRKEFF  
LQRKPPMLQPLALPPGLSVHQALERVRLPAVASKRYLTNKVDRSVGGGLVAQQQCVGPLQTP LADVAVVALSHEE  
LIGAATALGEQPVKSLLDPKVAARLAVAEALTNLVFALVTDLRDVKCSGNMMAAKLP GEGEALADACEAMVAVM  
AALGVAVDGGKDSLMAARVGTETVRAPGSLVISAYAVCPDITATVTPDLKHPEGRGHLLYVALSPGQHRLGGA  
LAQCFSQLGEHPDLDLPENLVRAF SITQGLLKDRLLCSGHDVSDGGLVTCLEMAFAGNCGLQVDVPVPRVDVL  
SVLFAEEPGLVLEVEQEPDLAQVLKRYRDAGLHCLHGLHTGEAGPHAMVRVSVNGAVVLEEPVGLERLALWEETSQ  
LDRLQAEPRCAVEEERGLRERMGP SYCLPPTFFPKASVPREPGGPSPRVAILREESNGDREMAFAHLAGFEVMD  
VTMQDLCSGAIGLDTFRGVAFVGGFSYADVLGSAKGWAAAVTFHPRAGAE LRRFRKRPDTFSLGVCNCGQLLALL  
GWVGDPNEDAAEMGPD SQPARPGLLLRHNLSCRYESRWASVRVGPALMLRGMGAVLPVWSAHGEGYVAFSS  
PELQAQIEARGLAPLHWADDGNPTEQYPLNPNNGSPGGVAGICSDGRHLAVMPHERAVRPWQAWARPPFDTL  
TTSPLQLSINARNWILEGSC

CTGCGGCCGCCCTGGTTTCTTGCCCTTAAGGAGCCCATTTGCCCTTTCCCGCTGAAGCTCTAGATGTTGACATGTAATAA  
AGCGGGCAGCAGGAGTGGTGGTGATGCGGCCAATCCAAATGGGCCCTTTCCAGCCCGTGGTCCCTTCTCCATATTCG  
AGATGTTCCCTCCTGCTGATCAAGAGAAGCTTTTATCCAGAAGTACGTCACTGTTGCGCTCCTCTTTGACTTTCT  
TTCTGATCCCACTAAGTGACCTTAAGGTGGAAGGAAGTAAACAGCAGCTGCTTTAAGTAAATGGTAGAATATATCAT  
CCATAATCCGAATGTGATCAAGAGGACCTATTATCCCAAGAAGTAGTCCATATGTTTGCAGTTAAACATGTTTCCGAAC  
ATTACCACTTCTCTCCAATCTCATCGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAAGCAGCCGTG  
GCCCTCTACAGCTTGTTTATGAATTTTCTTAAGATTTTAGAGTCTCCAGATTTCTCAACCTTATATAGCCAGT  
GAAATATATTGATCAGAAGTTTGTAATTGCAGCTTTTAGAGTCTTTTGACAGTGAAGATCTCTCGGGAGAGAGATTT  
TCTTAAACACCCTTACAGAAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA  
TATATTTTATAGGTTTATTTATGAACAGAGCATCATATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT  
AATTAATGGATTTGCCCTTACCCTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA  
AGTGAAATCTCTGAGTGTCTACCATCCCGAGCTGGCATACTGTGTAGTCAGTCTTTTAGAAAAGGACAGCACCT  
CACGGAACCACTGGTGATGGCACTTCTCAAACTACGGCCAAAGACTCCACAGTCCAAAAGAAGTAATGTTCTTTAAA  
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT  
GGCCAAATGTGCTCCAGCCACACTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT  
GAGTTTAATCAGTGACAACCGCAGGAAGATTCTGCCATCTGTTCTCTCTGATCCCGCACTCAAAAGACCA  
TTGGAACAGACAATACATGGCTTGATATACACGCCCTGAAGCTCTCATGGAGATGAACCAAAAGCTATTGTA  
TGACTGTACACAACAGTTCAAAGCAGAGAACTAAAAGAGAAGCTAAAATGAAAGAACGGGAAGAAGCATGGGT  
TAAAATAGAAAATCTAGCCAAAGCCAAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCGGGT  
TGCAATTGGAGACAGATGGGCCCTTATTGGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA  
GGCACAAGAAATTCGAAGAAGGACCGCTCTCTTGCACTCCGCAAGTCCGAGCTGCCCTCAGGACCCCAACCAA  
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCAGGACGGCCGCTAGCCTCGGGGCCCGCGGT  
CGGGGCCGGGCCCGCGAGTCTTTTCCGGATTCTGTAGAAAATACATATCTCTGTCGCCATACCAATCAGTTTACA  
CTCAAAGCTTTCTTGAGCCCGCTTCGTAGGCAATAACGTGCTGCCCTCCGCTCAGGAGGATTAGGAGTTCAAACA  
ATGGTGACTTCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCTCCGAGTGTCCGCCCAACCCAG  
CGTAGTCCAAAGTCAGACTATTTCAAAAGTCAGAGCGATAGGAAAGCACCCCTGCCCTTCACTCTTCATGTTCTCCC  
AAATGGAACTTAGGATCTTTTAAACATAGGTGGTTCTGTGATAACATCAGTGTTTCCAAATCAAAGGAACCGCTT  
AAAAAATAGGACCTATTTTAAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCACTTCT  
TTTGTTGTTTTTCAATCTCAGTGAATGGCTCTTTGCTTTTCGAGTTCTCACGCAACGTACTGGGCAATGACAA  
TCCTCAGCCGCTGGTATTTTCTAAGGGTCTCTTCACTTTGATGAGTGACATGAACACCGGTGCTCTCTCTCTG  
TGTGTACTTAAAGCCATATTTCCAAGCTCTGGGTACTCCAGGATTCAGGAGTAAGCCTGTAGAAGAGATTTAT  
TTAAAAGAGATTGCTCTGAAATTTATCTTAAAGAGCTTGCTCTGTCTACCTTGAAGCAAAATGGAGTTTAAAA  
TTATGTGTTAAATTTTATTTTATGAGCATTTCTGTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTG  
AATTAATAAAATTTATAGTCTCTAAGAAATCCACATTTTATGGAAGTTAGACGAAATCATTTTGTAGTTAAGCCA  
GTTCTTAGGCTAATGCAAACTGACAGGCCCTTAAAGCATAAAGTAACAGACATAGCATTTGCAAGGAGGCGGACCTGC  
CGCTGCCCTTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGGAGGAGGCCACCAGCAGGAGTACGTTTATGTTGA  
GCTCTTCTGTGAAAAGAGCTCACGTTATCAACACCTTGTAAAGGAAATACAGTGTTCGAGTTTTCATCGGTCT  
TCACATGCTGCTATATATTCCACAGAGTTCCCTTGCAATGACTGAGCTTTTGTAGTGAATAGCACAAGGAG  
AAAAATCTTTAAACTTAGTGCTTTGTCTATTCTTATTCTCTCAGGGTGGCCAGTATTTTGACTTATTATCTCT  
GCTTGAAGACTACTTGAGATGTGTACTGCTATTCTAAACACGTTGATCTAGTTTCTTCACTCTGTCGATAAGATT  
ATATAACTTAATGTTAAGTGCTCTTGAGGCATAAAAGACAAAATGTGGCTTTTATAGGATCTGTTTTTCTATCGA  
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGAGCTCTGTGACTCTCTGCCACT  
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCTGTCTTGGAGGAAAAACCTCGGGGGGAGGGGACTCT  
TTGTGGTAAAGACAAGTGCAGGTATGAATGCGAAGATTGCCCGAGCTAAAAGTGGACAAGTCCGCTTTGTGAGA  
TGAATACCTCTCTGAGAACTTGACAAGTATCTCTCCATTTTACCATTATGAAACACTATCATTAATAAAAAACAGTT  
TAGATGCCCTTCTCTTTTGGAGGAAAAAGGTGCTTTTATGTATAAAGCAGCGCTTTATGTATTTTGATATAC  
CATTTTGAACCTCCGCTTTTAGCTGTAGATATCTTCAATATCTTGTATTTTGGATGTTTCAGTATGTTTGTGAG  
AGAGGCTTTGCGAAGACTCTCTTTTGGCCCTCGGGAAGAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

**FIGURE 861B**

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA  
AAATAAAAGTTTTTCAGAGAAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC  
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAA  
CTGATTTCAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTCTTCATAAAGTCTGCGTTTGGCATCTTC  
ACTCTTCCAAAATGIATCTGTACATCAGAAATGTCACATTCCAAGTGICTTTTGTAGTGTGCCTTTAGTATGG  
CTTCCTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTCAAAAA  
AAAAGCGCCGCAG

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**FIGURE 862**

MVVDAAANSNGPFQPVVLLHIRDVPPADQEKLFIQKLRQCCVLFDVSDPLSDLKWKEVKRAALSEMVEYITHNRN  
VITEPIYPEVVMFAVNMFRITLPPSSNPTGAEFDPDEDEPTLEAAWPHLQLVYEFFLRFLSPDFQPNIAKKYID  
QKFVLQLELFDSEDPREDFLKTTLHRIYKGFLGLRAYIRKQINNIFYRFIYETEHHNGIAELLEILGSIINGF  
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTPVVMALLKYWPKTHSPKEVMFLNELEE  
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYWNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT  
IHGLIYNALKLFMEMNQKLFDDCTQQFKA EKLEKLEKMKEREAEAWVKIENLAKANPQYTVYSQASTMSIPVAMET  
DGPLFEDVQMLRKTVKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

**FIGURE 863**

TTAATGGTAGGAATTTGTATTTTTGCCTTTGTTTCAGAATACATGACATTGGTAAATATGCCACATGCCTTTGGT  
GGAAGTACAACCTGTTGTATTACTCTATACAAGTATGAGATCAGGGTTAGGAAAAAAGACAAAGAGGTGATGAC  
AGACACACAGTGGAAACCCACATCGTCTCATGGCAAACCGAAGAACGGGATGTGGGAAGCTCAGCTTCATTGTA  
CTGCAAAGTCCCAGGGTTTTGTTGCACATTTGCTCATGCACATGGGTGGTGGGAGGAAAGGGGGATAGCAGAGAC  
ACACAGAAGAGGGTACAGGGTGGGTGAGAAAGAAAGTAGAAGGGCTAATACCCCCAAAGAACAAGGCCAACTACA  
CCTGGTGAGCCTCAGAGGGACAGAAACCCAGGAATGATTCCT

CGAATTCCTCCCTCCCTCCCATAACTGCCCACTGCCCAAATAAAAAAAAAACCAACTATGGGAGAGCAGCC  
GAGACAGCAACTAGGGGCGAGGGGAAAGAGACATGGAAGCTCGAGGGCGAGCGGTGAAGAGACCATGCGTGTGCTGGG  
AGGGCCGACGAGGCGAGCGCGGCGCAACACGCGCAGGTACGAGTCTCTGTCTTCCCGGGGTTATGTATAAATA  
TAGAGAGATGAGGCTCTCTCTCCCTGCTCTCCCTCCGCTCGTGTCTCGCTCGCGGGTCCGAGCTCTCTTTT  
CATATGAGGGCGAAGGGAAGGGGGGATGAACAAGTCATCACCGAATGCAATCAGACCCACATCCATCAGCTTCT  
GGATCTTCTGTGCTATACAGGATCTCTTAAAGTGTTCGCTGAGTGCCTGCTCTCGGGGACAAATCCCTTTCTCTT  
TCTTCAGCTTAACCCCGGTGCGGCTTCGCGGAGTCCGGTCAGCCCCGGGAGCGCAACCCGGAGGGGCTCCAA  
GGGCGCTCTCGCGTCTGGGAAACGGCCGGGCCCCAGCGGGCTGTGTCTCGGGGGTGGGGCCCGAGCGCGGAGGC  
CCCCCTTACCGGGCTCGCAGGGCGCCCCAGGGCCCCGGGCTGAGACGGGGCGGAGCGCGCCCCGGCGCGCCG  
CGCGGGGTCTCCCCATGGTGACGGGGGTTCGGGATGCGAAGACGCTGAAGAAGAAGAAGCACTGGCTCAGCA  
AGGTGCAGGAGTGCGCCGTCTCTGGGCGGGCCCCGGGCGACTTCGGCGCGGAGATCCGCGGTGGCGCGGAGC  
GTGGCGAATTCCTCTACTGGGGCGGCTCCGCGAAGAACCCGGCGGGGGCACCTGTGTCATCGTCTCGGGCAAGG  
CGCCCAACCAAGCGATGTCTGCTGGAGGTAACCGGAGCGCTGTACGCGGGCTCACCAACCCGGGACACCTGG  
CTGTCTATCCGCCACTTCCGCGAGCCCATCCGTCTCAAGACTGTGAAACCAAGGCAAGTCATTAATAAAGATTTGCG  
GGCATTACCTAAGTCTTCAGTTTCAAAAAGGATCAATTGACCACAACTGCAGCAAGTGATCAGATAATCTCT  
ACTTGAGAACCATTCCTGCACTACAAAGGGCCCCGAGGATGGAGAAGTACCAAGGTGGATTATAAATTTCAATTT  
CCGTTGAACAGTCTAAAGCACTGGAGGAGAGTGGAGCAATGTTAGAAGTGGGACATATGATGGAACATCTCTATG  
GAATCCCAAGCTCCACGAGAACCCAGCCCTTTTACGCCAGATCCAGTTGATCAAGTCTCTTTGATTAATGAGT  
TTGATGCAGAATCTCAAGAAAAACGAACACATCTGTGCAAGAAGTGAAGAAGTGGATAGCTCTCTTCTGGAAG  
AGGAAGAAGATGAGGACAAAGGAGCTTAATAGGCAGTGGAAACGCAAAACAGAGAGAGGCAATCTGAGTCAT  
CTGACTGGATGAAGACTGTTCGAAGTTACAACCAAAACAAATAGCTCCATGGACTTTAGAAATTAATATGATGAGAG  
ATGAGACTCTGGAACCACTGCCAAAACTGGGAAATGGCCTACTGACACAGGGATGATCTACTTCAATTGACC  
ACAATACCAAGCAACCACTTGGTGGATCCTGCTTTGTAAGAAGCGAAAGCCCTGAAGACTGTGAAGATG  
GAGAGTCTCTTATGGCTGGGAGAAATAGAGGACCTCAGTATGGGACATACTATGTTGATTTCATCTTTGTGCG  
CCCAAGCTGGATGCAATGGCATGATCTCGGCTCACTGCAACCTCCGCTCTCTGGGTTCAATCACCTTAACCCAGA  
AAACCCAGTTTGAAATCCAGTGGAGGAAGCCAAAAGGAAAAAGCAGTTAGGACAGGTTGAAATTTGGGCTTCAA  
AACCAGATATGGAAAAATCACACTTCACAAGAGATCCATCCAGCTTAAAGGTGTCTCTGTTCCGAGCATCACTGA  
AAAAAGCACAATGGGATTTGGTTTTACTATTATTGGTGGAGATAGACCTGATGAGTTCTCTACAGTGAAAAATG  
TGCTGAAGATGGTCCCGAGCTCAGGATGGGAAAAATTGACCAGGCGAGTTATTGTAGACATCAATGGCAAT  
GTGTCTTCGCTCACACTCATGCAATGTTGTCCAGATGTTTCAATTTGTAAGTCTGCTCAATCAGTATGTAAACCTCA  
CTTTATGCTCGTGGTTATCCACTTCTGTGATGACAGTGAAGATCTGTTGGGACATGTTGCTGCTACCCCTGTCA  
TCAATGGACAGTCTTAACCAAGGAGAGACTTGCATGAATCCTCAGGATTTAAGCGGAGGCAATGGTTCTGG  
AGCAGAATGGAAAAATCGGGACACACTTCGACTGGTGATGGTCTCAATGGACCATCAGATGCAAGTGAGCAGAGAG  
TATCCATGGCATCTGTGAGGAGCTCCCGACCTGAACTAGTGACTATCCCTTGATTAAGGGCCCTTAAGGGTTTG  
GGTTTGCAATTCCTGACAGCCCTACTGTGACAGAGGTGAAAATGATACCTGGATGCTCAGTGGTGTGTCAGGGCTTC  
AGAAAGAAGATATAATTAAGGAAATATACCTCAAAATGTGCAGAATTTAACACATCTCCAAGTGGTAGAGGTGC  
TAAAGCAGTTTCCAGTAGTGTGTGATGATACCATTTGCTTATCTTAAGAGAGGTCCTCCTTCAACAAACAAAACCTG  
CCAAATGAAAACAGATAAAAAGGAAAAATGCAAGGAAGTTTGGAGGCCATAAATGAGCCTATTCCTCAGCCTATGC  
CTTTTCCACCGAGCATTAATCAGGTCAAGATCCCAAAATTTGGATCCTTCTGAGGTCTACCTGAAATCTAAGACTT  
TATATGAAGATAAACCCACCAACCAAAAGATTGGATGTTTTTCTCGAAAAACAGATCAGGGTTTGGCTTCA  
GGGTGCTAGGAGGATGGAGCTTCAAGCAGTCTATATATATTTGGGGCTATTATTCCTCGGAGCAGTGTGAGAAAG  
ATGGTGGCTCCGCGCAGCTGATGAACATAATGTGCATTGATGGAATTCCTGTAAAGGGGAAATACACACAAACAG  
TCTTGGACCTCATGACAACCTGTCTCGAAATGGCCATGTGTTACTAAGTGTACAGCGGAATCTTCTATGGAG  
AAAAACAACCCGAGGAGCAGAGCTTCAAGCCCTTATTTCAACACAGAAATGGATCTCCCGCCTGAACCCGGGCGAG  
AGGTCCACGCGAGCGCTGACCCCGAGGAGCCCTATGATGTTGTCTTGAACGAAAAAGAAATGAAGGATTTGGCT  
TTGTCTACTCTCACTTCAAAAACAAACACCTCCAGGAGTTATTCCTCAATAAATGGCCAGTCAATAGAAGAA  
GTCCGGCTGACCGCTGTGAAAACTGAAAGTTGGAGATCATATCTCTGCAGTGAATGGGCAGTCCATTGTTGAAC  
TGTCTCATGCTAACATTTGTTCACTGATCAAAGATGCTGGTGTACCGTCAACCTAACGGTCAATTGCTGAAGAAG

**FIGURE 864B**

AGCATCATGGTCCACCATCAGGAACAAACTCAGCCAGGCAAAGCCCAGCCCTGCAGCACAGGCCCATGGGACAGT  
CACAGGCCAACACATACCTGGGGACAGAAGTGCCCTAGAAAGGTGAAATTGGAAAAGATGTCTCCACTTCTTACA  
GACATTCTTGGTCAGACCACAAGCACCTTGCACAGCCTGACACCGCAGTAATTCAGTTGTAGGCAGTCGGCACA  
ATCAGAAACCTTGGTTGTTATCCAGTAGAGCTGGAGAGAGGCCCCCGGGGCTTTGGATTAGCCTCCGAGGGGGGA  
AGGAGTACAACATGGGGCTGTTCATCCTTCGTCTTGCTGAAGATGGTCTGCCATCAAAGATGGCAGAATTCATG  
TTGGTGACCAAATTGTTGAAATCAATGGGGAACCTACACAAGGAATCACACATACTCGAGCAATTGAGCTCATT  
AGGCTGGTGGAATAAAGTTCTTCTTCTTTTGAGGCCAGGAACCTGGCTTGATACCTGACCATGGTTGGCTCCTT  
CCGGTCTGTGCTCCTACGTGAAACCCGAGCAACATTAAGGCTTTCAGGGCTTTTCTTGGTCTTTCCTTAAAGA  
CTTGGTAAATTTGCATGCTTGTAAATCATTCTTCTTTGTTTTCTTTTAAATTAATAATGATGCTATTAAAT  
AAAAAAAAAAAAA



**FIGURE 865**

MSKTLKKKKHWLSKVQECASVSWAGPPGDFGAEIRGGAERGEFPYLGRLEEPGGGTCCIVSGKAPNPSDVLLLEV  
GTPVSGLTNRDTLAVIRHFREPIRLKTVPKVGKVIN KDLRHYLSLQFQKGSIDHKLQQVIRDNLVLRITPCTTRAP  
RDGEVPGVDYNFISVEQFKALEESGALLESGTYDGNFYGTPKPPAEPSPFQPDVPDQVLFDFNEFDAESQRKRRTS  
VSKMERMDSSLPEEEEEDEKGAINGSGNAENRERHSESDWMKTVPYSNQNTSSMDFRNYMMRDETLEPLPKNWE  
MAYTDTGMIYFIDHNKTTTTWLDPRCLKKAKAPEDCEDGELPYGWEKIEDPQYGYTYVDFTLVAQAGVQWHDLS  
LQPPPPGFNHLNQTFENPVEEAKRKKQLGQVEIGSSKPDMEKSHFTRDPSQLKGVLVRASLKKSTMGFGFTII  
GGDRPDEFLQVKNVLKDGPAAQDGKIAPGDVIVDINGNCVFGHTHADVVQMFQLVPVNQYVNLTLCRGYPLPDDS  
EDPVVDIVAATPVINGQSLTKGETCMNPFQDFKPGAMVLEQNGKSGHTSTGDLNGPDSASEQRVSMASGSSQPE  
LVTIPLIKGPKGFGFAIADSPITGQKVKMILDSQWCQGLQKEDIKEIYHQNVQNLTHLQVVEVLKQFPVGADVPL  
LILRGGPPSTTKAKMKTDKKENAGSLEAINEPIQPMPFFPSIIRSGSPKLDPSEVYLKSKTLYEDKPPNTKDL  
DVFLRKQESGFGRVLGGDGPDSIYIGAIIPLGAAEKDGRLRAADELMCIDGIPVKGKSHKQVLDLMTTAARNG  
HVLLTVRRKIFYGEKQPEDDSSQAFISTQNGSPRLNRAEVPARPAPQEPYDVVLQRKENEGFGFVILTSKNKPPP  
GVIPHKIGRVIEGSPADRCGLKLVGDHISAVNGQSIVELSHANIVQLIKDAGVTVTLTIVIAEEHHGPPSGTNSA  
RQSPALQHRPMGQSQANHIPGDRSALEGEIGKDVSTSYRHSWSHKLHQAQPDTAIVSVVGSRRHNQLGCYPVELE  
RGPRGFGFSLRGGKEYNMGLFILRLAEDGPAIKDGRIHVGDQIVEINGEPTQGITHTRAIELIQAGGNKVLLLLR  
PGTGLIPDHGLAPSGLCSYVKPEQH

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**FIGURE 866**

CCCTTCGCTCCTTCATTAGACGTTTGTCTTGTCTTAGATGCTCAGATGGTAGTGGATAGGCCGTGTGACGAAGGT  
GCTACCATCGTAGAGTAAGATTATATTCTCCTGCCTTTTAAAAAGATGGACTTCAGCAGAAAATCTTTATGATAT  
TGGGGAACAACTGGACAGTGAAGATCTGGCCTCCCTCAAGTTCTCTGAGCCTGGACTACATTTCGCGAAAGGAAGCA  
AGAACCCATCAAGGATGCCTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAAATGTTGGAGGAAAAGCAATCTGTC  
CTTCCTGAAGGAGCTGCTCTTCCGAATTAATAGACTGGATTGCTGATTACCTACCTAAACACTAGAAAAGGAGGA  
GATGGAAAGGGAACCTTCAGACACCAAGCAGGGCTCAAATTTCTGCCTACAGGGTCATGCTCTATCAGATTTGAGA  
AGAAGTGAGCAGATCAGAAATTGAGGCTCTTTAAGTTCTTTTGCAAGAGGAAATCTCCAAATGCAAACTGGATGA  
TGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTCATCTCGGAGAAGGAAAGTTGGACATCCT  
GAAAAGAGTCTGTGCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAAGGGGA  
GGAGTTGTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCAGACACTTTGGACAAAGT  
TTACCAATGAAAAGCAAACTCGGGGATAGTGTGATCATCAACAATCACAATTTTGCAAAAAGCACGGGAGAA  
AGTGCCCAAACTTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGGCTTTGACCACGACCTTTGA  
AGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAAATCTATGAGATTTGAAAATCTACCA  
ACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGGCATCATCTATGG  
CACTGATGGACAGGAGGCCCCATCTATGAGCTGACATCTCAGTTCAGTGGTTTGAAGTGCCCTTCCTTGTGCTGG  
AAAACCCAAAGTGTTTTTTATTAGGCTTGTGAGGGGATAACTACCAGAAAGGTATACCTGTTGAGACTGATTC  
AGAGGAGCAACCCATTTAGAAAATGGATTATCATCACTCAAACGAGATATATCCCGGATGAGGCTGACTTTCT  
GCTGGGGATGGCCACTGTGAATAAATGTGTTTCTACCGAAACCTGACAGAGGGAACCTGGTACATCCAGTCACT  
TTGCCAGAGCCTGAGAGAGCGATGTCTCGAGGCGATGATTTCTCACCATCCTGACTGAAGTGAACATGAAGT  
AAGCAACAAGGATGACAGAAGAAAACATGGGGAAACAGATGCCTCAGCCTACTTTCACACTAAGAAAAAACTTGT  
CTTCCTTCTGATTGATGGTGCTATTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTT  
CGCCAGGCTGGAGTGCAGTGGCTGATCTCGGCTCACCGCAAGCTCCGCTCCCGGGTTTCACGCCATCTCCTG  
CCTCAGCCTCCCGAGTAGCTGGGACTACAGGGGCCCGCCACCACACCTGGCTAAATTTTTTAAAAATATTTTGTAGT  
AGAGACAGGGTTTCACTGTGTTAGCCAGGGTGGTCTTGATCTCCTGACCTCGTGATCCACCCACCTCGGCCCTCCC  
AAGTGTCTGGGATTACAGCGCTGAGCCACCGCGCTGGCCGATGGTACTATTTAGATATAACACTATGTTTATTT  
ACTAATTTTCTAGATTTTCTACTTTTATTAATGTTTGTGACTTTTTTATAAGAGCTAAAGTTAAATAGGATATTA  
ACAACAATAACACTGTCTCTTTCTCTTATGCTTAAGGCTTTGGGAATGTTTTAGCTGGTGGCAATAAATACCA  
GACAGCTACAAAATCCAGCTATGAATATAGAGGGCTTATGATTCAGATTGTTATCTATCAACTATAAGCCCACTG  
TTAATATTTCTAATACTTTAATTCCTTTCAAAGCTAAATTCACACTACCCATTAAAAAAATTAGAAAGTAGC  
CACGTATGGTGGCTCATGTCTATAATCCAGCACTTTGGGAGGTTGAGGTGGGAGGATTTGCTTGAACCCAAGAG  
GTCCAAGGCTGCAGTGAGCCATGTTACACCGCTGCACCTCAAGCTTGGGTGACAGCAAGACCCCGTCCCCAAA  
AAAAATTTTTTTTTTAAATAAAACAAAATTTGTTTGAATCTTTTAAAAATCAAATGATTTTTACAGTTTTAAAT  
AAGCTCTCCCCAACTGCTTTATGCCTTCTTATTGCTTTTATGATATATATATGCTTGGCTAACTATATTGCT  
TATTGCTAACAATGCTCTGGGGTCTTTTATGCATTTCGATTTCCTCTCTGCTTGGATTATTTTAAAT  
CATTAGGAATTAAATTATCTTTAAATTTAAAGTATCTTTTTCCAAAACATTTTTTAAATAGAATAAAATATAATT  
TGATCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 867**

MDFSRNLYDIGEQDSEDLASLKFLSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL  
ITYLNRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSELRSFKFLLQEEISKCKLDDDMNLLDIFIEMEKRV  
ILGEGKLDILKRVCAQINKSLKIINDYEEFSKERSSSLEGSPDEFSDNDFGQSLPNEKQTSGLSDHQSQFCKS  
TGESAQTSQH

**FIGURE 868**

AAGCTAAATAAATATAGCTTTATTCATCTTTCAGAGATTGCCATTTAGCCTAGAAAAATTACATCAAAAGATGAAC  
TGATTTTTCCTTGAAAAAGTCAACCATGTTTAAATTGCTCACAACAATTTTAATTACAACAGATGTAATTTCTAATA  
TATACCATTCGATCACACACCATTTTTATGTTCTGGAGTGAGACCTGGGAGTATTTTGCTTAAGACTTTCATT  
CTCTAAACTAGCTTTGGCAGTTAACAATGTGGAGAATTCAGCACAAAAAGCACCCTAGCCCAGCCCTTTTATTT  
TATTTTTTTAAATCTCTATTTAAACCTTCAAAGTTTCCTTTGCAGCCATATGCATTTCTAGGTGGCTCTACCTGT  
AGAAGGCTGCACTTTCCAAGCGGCAGGGACTTTAATCTCACTTXCCACCACTCC

## FIGURE 869

GGCAGCAGGGAGGTTCTGCATGAAGGGGATCCCTACATCGCAGCCTACCAGAAGAACTGGCTCATTTCCACGCCG  
GCGGTGCAGCCCCGGCTCAAGCTGCTCCTGATGGGGCATAAGGCTCGAGGAAAGACTTTGCTGCGCCACTGCCTC  
ACCAGGAGAGAGTGGAGGGATGCCAGGAGGAGGGGACAAGGAGAAGTGCTACCCACCGTCACTCCCCCTGTG  
AGCAAGGGCATCGAGTGGCTGACCACTGGACGGCCGATGCCCTCCCGGGCTGCGGTTTATCGTGTATGACTTAGCT  
GGGGATGAAAGTTATGAGGTGATCCAGCCCTTCTTCTGTCCCCAGGGGCCCTATACGTGCTGGTGGTCAACTTG  
GCCACCTATGAGCCTCGCCACTTTCCTACCACCGTGGGCTCCTTCTTGATCGGGTCGGGGCGAGAGTGCCCCAC  
GCGGTGGTGTGATCGTGGGCACCCACGAGACCTGTGCGGAGAGCGTGAGCTGGAGGAGAAATGTCTGGACATT  
CACCGCCAGATCGCCCTGCAGGAGAAGCAGCAGCGGAGGGACTGAGCCGCTTGGCCAAGTGGTGGACGAGGCA  
CTGGCCCGGACTTCGAGCTCGCTCTGCCAGCCCCACGCGACCTACTATGGCGTTTCGGACAAGAACCTTCGA  
CGGCGCAAGGCCATTTTCAATACCTGCTCAACCACCGGCTGCAGATCCTCTCCCCGTGTTGCCGTGTAGCTGC  
AGGGACCCGCGCCACTTACGACGCCTTCGGGACAAGTTGCTGTGAGTGTGCTGAGCAGCGAGAGATCTTCCCAAC  
TTACACAGAGTACTGCCTCGATCCTGGCAGGTGCTGGAGGAAGTGCATTTCCAGCCACCTCAGGCCACGAGCTG  
TGGCTAAGCTGGTGGGACTCGGCGCCTTGGGCTCGAGGCGGGTCTGACCGAGGACCGACTGCAGAGTGGCCCTC  
TCCTACCTGCATGAGAGCGGCAAGCTACTTACTTTGAGGACAGTCCGGCTCTCAAGGAGCAGCTTTCACAAC  
CTCACCCGCTCATCGACATCCTCAATGCTCTTCTCCAGAGGGATCCCTCTTGTGCTGCATAAGCTGCTCCTA  
GGGACAGTGGAGAGGGCAAGGCGGAGGGGAAAGTCCCCGCCATGGCGCGGTCCACCCCGAGCCAGGAAGT  
CTCCGGGCCACCCAGCTCCATCAGTATGTGGAGGGCTTTCTGTTGCATGGGCTCTTGCCAGCTCATGCTATTG  
TTGCTGCTTAAGCCTCATGTCCAGGCCACGAGGACTTGAGCTGTTGCTGGAGCTGCTGGAGAAGATGGGACTC  
TGTTACTGCTCAATAAAACCAAGGGCAAGCCTTTGAATGGGTCCACAGCTTGGTACAAGTTCCCATGCTATGTG  
CAGAAAGAGGTGCCCATGCAGAAGCCTGGATTAATGGGACCAACCTAGCTGGGAGTCTTTTGTGGCTGAGCAG  
TTGCAGATTGAATATAGCTTTTCTTTTACTTTTCCACCTGGGTTGTTGACGCTACAGTGCCAGATCAACAGC  
CATGTTGGTGCACAGGTGGATGTTAAATTTAGATCTTTGCTATAGAGGGAAGTTCTGTGGTGTGAGTTAC  
AGACCTGCCAGGGGAGTCTCGAGCGAGACACCTGTCCATTGCTAGCCATGCATATTACCAATATATGGACC  
GCATGGCAAGCCATAACCCCTTGGTGGAGGAAGTGAATGTCTACTTCAGGAATGGCCTGGACTGCATACACC  
GTGCACATTCTCTGTCTTAAGTGCTTAAGAGAGGATCGCCAATCCACATGCTTTTCCAGGGGAGTGTGCTGAGT  
CAGCCAGACCGGAAGGAGTGGCAGAGATCATTGCCCCAAGAACGGCAGCAGCAGTAAATGTTGCCCTGGTT  
TACCCACCCACCGGACTGTGATCAGCCCTGTTCGAAGAAGATGTTGGTGAAGAAGCAGAAACCAAGTACGCT  
TTGTGGCTGTGGAATTTCCATGGAGAAAAGAGAGCATCTGAACACCTGGACCATCTTTTGACCTGGCAGACCT  
CTGCATCACCCAGCGTGTCTGTGAACCTGAGTGACAACGCGTGCTTGACGGGTGCTTTTGGATGACTGGG  
AAGAGTGGGGAGGGGTGGTGGGGGGAAGCATGGACGAGAACATGGAGCAAAATGTTTACAACCTGAACCTGAG  
AAGTGTGATCCTCAAGGAGCGGCTACTTGAAGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 870**

ATCCGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGGCAACCAGATCGGGGCCAAGTTCTGGGAAGTCATCAGT  
GATGAGCATGGCATCGACCCAGCGGCAACTACGTGGGCGACTCGGACTTGACAGTGGAGCGGATCAGCGTCTAC  
TACAACGAGGCCCTCTTCTCACAAGTACGTGCCTCGAGCCATTCTGGTGGACCTGGAACCCGGAACCATGGACAGT  
GTCCGCTCAGGGGCCCTTTGGACATCTCTTCAGGCCTGACAATTTTCATCTTTGGTCAGAGTGGGGCCGGCAACAAC  
TGGGCCAAGGGTCACTACACGGAGGGGGCGGAGCTGGTGGATTTCGGTCTGGATGTGGTGCAGGAGGTGTGAA  
AACTGCGACTGCCTGACGGGCTTCCAGCTGACCCACTCGCTGGGGGGGGGACGGGCTCCGGCATGGGCACGTTG  
CTCATCAGCAAGGTGCGTGAAGGATATCCCGACCCGCATCATGAACACCTTCAGCGCTCGTGCCCTCACCCAAAGGTG  
TCAGACACGGTGGTGGAAACCTTACAACGCCACGCTGTCCATCCACCAGCTGGTGGAAAACACGGATGAAACCTAC  
TGCATCGACAACGAGGCGCTCTACGACATCTGCTTCCGCACCCCTCAAGCTGGCCACGCCCACCTACGGGGACCTC  
AACCACCTGGTATCGGCCACCATGAGCGGAGTCACCACCTCCTTGCGCTTCCCGGGCCAGCTCAACGCTGACCTG  
CGCAAGCTGGCCGTCAACATGGTGCCCTTCCCGGCCTGCACTTCTTCATGCCCGGCTTCGCCCCCTCACCAAGG  
CGGGGACGCCAGCAGTACCGGGCCCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTCGATGCCAAGAACATGATG  
GCCGCTTGGACGCCGCGCCACGGCCGCTACCTGACGGTGGCCACCGTGTTCCGGGGCCGCATGTCCATGAAGGAG  
GTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACACGTGAAG  
GTGGCCGTGTGTGACATCCCGCCCCGGCCCTCAAGATGTCTCCACCTTCATCGGGAACAGCACGGCCATCCAG  
GAGCTGTTCAAGCGCATCTCCGAGCAGTTACGGCCATGTTCCGGGCGCAAGGCCCTTCCTGCAGTGGTACACGGGC  
GAGGGCATGGACGAGATGGAGTTTACCAGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTAC  
CAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGGAGGAGTCGGAGGCCACAGGGCCCAAG  
TGAAAACTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGGCGGGGCCGAAGCCAGCAGTGTCTAAACCCCCGGAGC  
CATTTGCTGCCGACACCTGCTTTCCCCATCGCCCTAGGGCTCCCTTGCCCGCCCTCTGCAGTATTTATGGCCT  
CGTCTCCCCCACCTAGGCCACGTGTGAGCTGCTCCTGTCTGTCTTATTGACAGCTCCAGGCCTGACGTTTTTAC  
GGTTTTGTTTTTACTGTTTGTGTTTATTTTTCGGGATACTTAATAAATCTATTGCTGTGATACCTT

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**FIGURE 871**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPSGNYVGSDQLQLERISVYYNEASSHKYVPRAILVDLEPGTMDS  
VRSGAFGHLFRPDNFIQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCIQGFQLTHSLGGGTSGMGTL  
LISKVREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSIHQLVENTDETYCIDNEALYDICFRTLKLATPTYGDL  
NHLVSATMSGVTTSLRFPQQLNADLRKLAVNMVFPFRLHFFMPGFAPLTRRGSQQYRALTVPETQOMFDAKNMM  
AACDPRHGRYLTIVATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQ  
ELFKRISEQFTAMFRKAFLLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEESEAQGP

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**FIGURE 872**

ACGCCCTATACAACCTGGCTTCACATACTTTTACACTAACCTTTATATGATTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGAGAA  
CCTTAAACCCACTCGAGCAGATAATCTCCGCCCTTGACCGGTGCCACCAAGAAAGGGTTGGAACCACTGGGACTTT  
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAGTTTCGGGGACTTCATCACTTTGGCCAAACGGGAGGTCTCT  
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCTACCCTGTCCGCCACCGAAACGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCCAAGTTCGCCCTCTCTCGGATATCTCTCAGGCCTGCCCTTCATTGGCTCTCT  
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAAACAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTCTCAGAATGACCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAGAGCCTGACAGAAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGGAGATACAGTGAAGGTCTTGATGCCAGGTTGTAATGGTTACATGATTCATGATCAGGAAAGCAAATC  
AGAGGTTTCAGATTCTTACCCTCTGTCAAGAAAACAAATCAAGTGCAGAGTGAAGAGCTTTCCATCACGGAAGATT  
CATCATGAGTCTCCGGAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAATCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAGTTTCTGTATCATC  
TCATTTTGTGGCTTTCTTATGAAGAATGCACCAAGTTTAAAGCAAATCATGCTGAACCTATTTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGGATTTCACTCAGTGAAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGTTTGA AAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCAATCTTGAAGC  
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCTTCTCCTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGCGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCTTTGTGCGTAATATCCTTGCTCAGGCTCTTTATGAATTAATTTCTGC  
CACAGATGATTCCTCGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTTGGTGGCGAATGTGTTGCGGG  
TCTGTGGGCTGCTTTCTGTATTGCTCTCTAACCCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA  
TGCCGTGATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT  
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAAGCTTAAAGGGG  
AACCATTGTGAATGAATATTTGGAACCTACCAAGTCTAAGAGACTTTTGAAGAGGATATATATAGCATAGTA  
CCATACCATTATAAAGTGAAACCTCTGGACCAAGATTTGGATTAAATTTGTTTTGAAGTTTTTGTATATAAA  
TATGTAATACATGCTTAATTTGCAATTTAAATGAAGGGTTAAATAAGTTAGACATTGAAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTGAATTTAGTATTTGAGATGAGTTGTTG  
GGACATGCAATAAAATGAAGATGAC



**FIGURE 873**

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGLLGRQSRSGSQFALFSDILSGLPF  
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQS GRAFH  
HGRFIMSLRKAAMAEFNAKFIEGVVLQLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVVGFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMWVEKIYPQIPDHLKEP  
FLEATDNSHLRSM LASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGEVCVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLKACSVIFPLIYSEM KYMVH

## FIGURE 874

GGCGCCATTTTGTGGAGCCTGCGACCGAGTGGGAGTGGAGTGGAGCGGGTGTGGTTGCCGACTCTTTCCCTCTTC  
CCCACGGTCCAGTCCAGCGGGTTAATTAGGCCATCGGCCCTCGAGCCGAGACTTGTCTCTTATTATTAGTTCTGGGGA  
GCGCCTCGTCGACATGATGTATGTGGAGAAAAACAACCTTCGAGGGCAGAGTGAGTACAAAGCCGCGGGAGCCGCT  
TAGCGCGCGGCCAATGCTCGGGGTTTCACGGGAACAAGCGCGGTTCGGGCGGGGTGCGGGTAGTCCCGCGAGGA  
GCAACCTCTGGAGCCATCGCGATTGATTCTCTCCATCCCAAGATGGCTTCTGGGTTCCTCTCTCCCAAAACAC  
CACGGATAACACCCCTCCCTCTTTTGGAGGCTGACTGATACCTGGACTTCTGGGTCCTCTCCCTCCCGCCCC  
CCGCAATTGCTTACCTCTCTCCACCCCTGAGGCTTCCTTATGTCTGCTCCGAGGTGTGGGTCCCGCTCGCGG  
TTGGGCGGGAGGAGGCGCGAGGGAGCTCCCTCCGTCGGATAGTGGTAGTGCTTCTCGGGTGGCATTCTTG  
CGACCCCGAGCATCGTAGAGGCTCTCGGGATCGAAAGTGC CGCGGGGCTGCTTCCGGGCGGGAGAACTGGCGT  
GGGACTAGCTGGGGCTGTGTCTCCTTGGCTCTTATTTCAGTGAGCGCGCGCTCTCTGTTGGAACCGCGCGG  
TTGCGTCTAAAAAGCGAAAGCCTTGAGGTTGAAGGTGGGACGAGCCTAATGAAGTGGTTAGTCAACGACCGCAC  
CGACCCCTTAAGCGTTCTTAAGACGAGAGCTGTGAGGGGAACTACGCAAGGAGCCCTTTCCCTTAATGTCCTT  
CGACTTTCCTTTCCTTCGAAATGAATGGGAAATGCTGTACGCGCTTATTTTCTAATTCCTCGATGTTGGGTT  
TTTTCTCTCTTTATATCTCAACTTTTAAATGCTCTTCTCCTATGACCTTTCATCTAAAAACTGACCACTCCTTT  
ACAGGTTTTACGGTAAAAAATACGGTCTTCTTTAATCTTACATAGCTGAACGAATTATTGGCTCAG  
TATTTTTAAGATACTAGTCAGTATATCTGTTCTGTAACCTAAAAAGATGACCTGAAAAATTAACAGGCCCTCTCC  
CATTCTCTTCTCACTCTATCCCCACCGAAGAGGGCTCAGAAAAAGTTTTATTAAATATATTGGGGTCGGAG  
AAATACAAACATCACAAAGAATACGATATCCCCAGCTTAAATGTACTGGAACGTTTGTGAGTGAGTTTCATTTC  
AAAGTTTACCCTACATAGGGAATTGTAGAAGTGAGTTAGTAGAAGTGAGTTCGTGTAACCTGGAAGAAAAAC  
AAAAGCCCCATGCAACACGTTCCGGGCTGTTGTGTAGATGTTTATCTAGTCACTAGGGGAAGCACATAAAAAACA  
CCTGAGGTGTGTGTGCTGAAGGGCGCAATTTTGTCTTTTGGGGAGTTCATGATATAAACATCTAGAACCAAAAAG  
TCAATCAGAAGGTCAGTTAGGCTTTAGTTCTCTTTGAGGAAAGATTTAAAGCAATAGACTATAATAGTTACCC  
GGTAGACTAAAAAATTTGCCTTTAAATCTTTTGATTGGAATTTTTTTTACAAAGTTTGGAGCATGGAACAAAT  
GAAAATTGAACCTGCTTATTTTTTAGGATGGTGTATTGATGGCCCAACAGAACTTCTTAAATCATGCGATAAA  
CATATATGATAGTAGTTGTAATAATGCTTCTGTTTGAATGTTGAGTAATTATCGATAGAAATTTTGTGTCC  
ATTCATACATTCCTTCAATTAACCTTCATTGTTAAAAAATTTGGGGGATTGATGTTTGGTTTGGTTTGGTGGGAGT  
GAAGAGGACTACTGGAGGGACCTTGTGTTGCTTGTCTTTTCTTTTAAATTTATCATCAAGCTCAGGAAGGA  
GTAAGTTGCCGACAATTGTCACCTTTCCCTCCTAAGAAAGTAACATGTTAAGATTCCCACTACCAGCCTGGGTG  
ACAGTGAGACTCCCGTCTCNNNNNNNNNNNNNNNNNNTTCCACCCACTTTAAAGTAAAGTATATGTAGGCA  
TTAAAGATTTATTTAATAGAAAATAAAGGGCCCTCTTACGGCCCTTTGTGGTCTAGGAAATATTTTTTTCACAA  
TGGTACCCAAGTGATTT

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**FIGURE 875**

RHFAGACDRVGVEWSGCCRLFP LPHGPVSG LIRPSALEPRLVSYLVLSASST

**FIGURE 876**

CCGCCGCCCATCTGAGGGAGGTACCCTGAAAACCACCTTTTATCGGTGGGGAAGTGCAGTCGCGGTGGCGGC  
TCTGGGGGCCAGCGAAACGGGAGGCCCTCTAAATCTTTAGGTTGGGGCTGCATTGCCCTGGAGCCGCACTCTTGAG  
TCCGAGGCCATCTTTTGTGGAGAAGGCGTCGGCGTTGGCGTTTCCCGAGGTTGGGCTGTACAGTGTCTCCGTC  
CGCGGAAAAAGAAGCCTCTGAACCCGCGCCGGCCCGCAGCCCCGTGCCCTCCGGCCGCTGCTCGCCGTCGCCAG  
AGGCTAGGCCACGTTTCCCCCAGTGCCGAGGTGTTTCTGTGACCCTCCCTCCACTCCCATTCCCTTCTGAAAAGG  
CACCTGCTCTTGGTGAGAAAAAGAAATTATAGCACGAAGAGCCAGTATCAGAAGAGTATCCATCACCCGAGCAAC  
CGCTCAGGGAACACCATCAAAAAAAAAAAAAAAAAA

## FIGURE 877

CTCGACTCTTAGCTTGTGCGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTGCGCTTCGCCCTCCTAATCCCTA  
GCCACTATGCGCTGAGTGCACTCCATCCACGTTGGCCAGGCTGGTGTCAGATTGGCAATGCCTGCTGGGAGCTC  
TACTGCCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCC  
TTCAACACCTTCTTTCAGTGAGACGGGCGCTGGCAAGCACGTGCCCGGGCTGTGTTGTAGACTTGGAAACCACA  
GTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGAT  
GCTGCCAATAACATATGCCCGAGGGCACTACACCATTTGGCAAGGAGATCATTGACCTTGTGTGGACCGAATTCGC  
AAGCTGGCTGACCAGTGCAACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACGGTTCTGGG  
TTCACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTATCCCA  
GCACCCCGAGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTTGGAGCACTCT  
GATTGTGCTTTCATGGTAGACAAAGAGGCCATCTATGACATCTGTGCTAGAAACCTCGATATCGAGCGCCCAACC  
TACATAACCTTAAACCGCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTGTATGGAGCCCTG  
AATGTTGACCTGACAGAATCCAGACCAACCTGGTGCCCTACCCCGCATCCACTTCCCTTGGCCACATATGCC  
CCTGTCTCTCTGCTGAGAAAGCTTACCATGAACAGCTTCTGTAGCAGAGATCACCAATGCTTGTCTTGAGCCA  
GCCAACCAGATGGTAAATGTGACCTTCGCCATGGTAAATACATGGCTTGTGCTGCTGTTGACCGTGGTGACGTG  
GTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC  
ACTGGCTTCAAGTTGGCATCACTACCAGCCTCCCACTGTGGTGCTGGTGAGACCTGGCCAAGGTACAGAGA  
GCTGTGTGATGCTGAGCAACACCACAGCCATTGCTGAGGCGCTGGGCTCGCCTGGACCACAAGTTTGACCTGATG  
TATGCCAAGCGTGCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGCGAGTTTTTCAGAGGCCGTGAA  
GATATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGGTGAGGAAGAAGGA  
GAGGAATACATAATTATCCATTCCTTTTGCCCTGCGCATGTGATGCTCCCAGAATTCAGCTTCAGCTTAACTG  
ACAGACGTTAAAGCTTCTGTTTAGATTGTTTTCACTTGGTGATCAIGTCTTTTCCATGTGTACCTGTAATATT  
TTCCATCATATCTCAAAGTAAAGTCATTAAACATCAAAAAAAAAAAAAAA

**FIGURE 878**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIIGGGDSFNTEFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHVSFGGGTGSFT  
SLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTATAEAWARLDHKFDLMYAKRAFWHWYVVGEGMEEGEFSEAREDMAALEKDYEVEVGVSVEGEGEEEGEE  
Y

## FIGURE 879

GGCAGGAGGCAGTAGCTCCCGTTGCGGGCGCACCCGTGGCAGCCCTGGCGGACGCAGGAGCG**ATG**CGAGCGACCG  
ATATAGCTCGCCAGGTGGGTGAAGGTTGCCGAAGTGTCCCGCTGGCTGGACATGTGGGGTTTGACAGCTTGCCTG  
ACCAGCTGGTGAATAAGTCCGTGAGCCAGGGCTTCTGCTTCAACATCCTGTGCGTGGGAGAGACAGGTTTGGGCA  
AGTCCACCCCTCATGGACACCCCTGTTCAACACCAAAATTCGAAGGGGAGCCAGCCACACACAGCCGGGTGCC  
AGCTCCAGTCTAATACCTATGACCTCCAAGAGAGCAACGTGAGGCTAAAGCTCACGATCGTTAGCACAGTTGGCT  
TTGGGGACAGATCAACAAAGAGGACAGCTACAAGCCTATCGTGAATTATCATGCACAATTTCGAGGCCATCC  
TGCAGGAAGAGCTAAAGATCCGAAGAGTGCTACACACCTACCATGACTCCCGAATCCATGTCTGCTGTATTTC  
TTGCCCCACGGGTCAATCCCTGAAGTCTCTGGACCTAGTGACTATGAAGAAGCTGGACAGTAAGGTGAACATCA  
TCCCCATCATTTGCCAAAGCAGATGCCATTTTGAAGAGTGAGCTAACAAGGTTCAAAATCAAAATCACCAGCGAGC  
TTGTACGCAACGGAGTCCAGATCTATCAGTTTCTTACAGATGATGAGTCGGTGGCAGAGATCAATGGAAACATGA  
ACGCCACCTGCCGTTTGCTGTCAATTGGCAGCACAGAAGAACTGAAGATAGGCAACAAGATGATGAGGGCGCGGC  
AGTATCCTTGGGGCACTGTGCAAGTTGAAAACGAGGCCCACTGCGACTTTTGTGAAGCTGCGGGAGATGCTGATT  
GGGTCAACATGGAGGATCTCGGGAGCAGACCCACACCCGGCACATGAGCTGTATCGCCGCTGTAAGCTGGAGG  
AGATGGGCTTCAAGGACACCGACCCCTGACAGCAAACCCCTTCAGTTTACAGGAGACATATGAGGCCAAAAGGAACG  
AGTTCTTAGGGGAATCCAGAAAAAAGAAGAGGAGATGAGACAGATGTTTCGTCCAGCGAGTCAAAGAGAAAGAAG  
CGGAGCTCAAAGAGGCAGAGAAGAGCTGCACGAGAAGTTTGACCGTCTGAAGAAGCTGCACCAGGACGAGAAGA  
AGAAATCGGAGGATAAGAAGAAATCCCTGGATGATGAAGTGAATGCTTTCAGCAAGAAAGAGCGCGGCTGAGC  
TGCTCCAGTCCCAGGGCTCCAGGCTGGAGGCTCACAGACTCTGAAGAGAGACAAAGAGAAGAAAAATTTTTT**TT**  
**AA**ATCTTGTCTTCAGCAGCTGCATTAAGTCTAAGGAGAAGACTGCCATTATAGAAGAGTTAGGGTTCCATATTGT  
CTCAATCAGAAATCAACCAATTTCTCTCCCTCAAACTGCAAGCACACACATACACCACACCCTCAACAA  
GTGTTCAATGTGCTCCGTGTGTCAGGCAAGAAGCTCTCTCTGACTCACATGGTATTTTAAATGGAAGTGCTTG  
TCCTAACTAAACAGGCAGGAAAAAACCATCAGAGCTGGAATGAGCAAAATGTAACTCAGAGAAACAACTAC  
AGGACCACTACCCAAAGTGTAAGTGACTGGGGCAGGACACCTCAGCTGTGGGTATGAAAGTACTGTTCTGTTCAC  
AAGGTTTTGTTTGAGTTTTATGTTTTCTTTTAAACATTTCTCTGGTTCGATGGGTTGACTGTCTACAGCCACTG  
TTAAACATTTCTGAATATGCAAGAGAAAGTCAAGTGACATTTGTATCTTCTTCAGCATTGCGAGACCTTCTATAG  
ATTCAGCAAAAGGGGAAAAATGTATCCACTATCTAACACTTAGGTAGAGAAGGGAGGGGGTTTAAGCTTAGTGAG  
GGCAAAATTAATCCATTCCACCTTCCGAGACCAAGTTAGGGTTTTGAGAGAGGTTTTCTGCTCAACCTGGGATCTGG  
AGGGAGAGCTTTGATGTGGTAAATCTGCCTTGAATTCATTGGTTTAACTTGATCAAAAATACCATGTGAGTGTG  
CTCATTCTCATATATCCCTTACCACCATCACCACCATTTCTGCTGTTTCAGTGCTCTTTGAGAGAGCCTCTTTGCAT  
GTTTTCCAGAAATCTGTGTGTTTTTCTTTCTTCTCTTTTGTCTCAAAGGTGTGACCAGTCATTGCG  
CCCTCTGGGGCTTTTCAATCTCCAGGAGAAACATCCAGAACCAAGCACTGTTTAGCCTGATACCTTTCTAATGTCC  
ATGTCAATTTTCAATAAAATTCAAAGAAATGCTAAAAA

**FIGURE 880**

MAATDIARQVGEgcRTVPLAGHVGFDSLDPQLVNKSVSQGFCFNILCVGETGLGKSTILMDTLFNTKFEGEPATHT  
QPGVQLQSNITYDLQESNVRLKLTIVSTVGFGDQINKEDSYKPIVEFIDAQFEAYLQEELKIRRVLH TYHDSRIHV  
CLYFIAPTGHSLKSLDLVTMKKLD SKVNI IPIIAKADAISKSELTKFKIKITSELVSNQVQIYQFPDDESVAEI  
NGTMNAHLPPFAVIGSTEELKIGNKMMRARQYPWGTIVQVENEACDFVKLREMLIRVNMEDLREQTHTRHYELYRR  
CKLEEMGFKDTPDSKPFSLQETYEAKRNEFLGELQKKEEEMRQMFVQRVKEAEELKEAEKELHEKFDRLKKLH  
QDEKKKLEDKKKSLDDEVNAFKQRKTA AELLQSQGSQAGGSQTLKRDKEKKNF



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**FIGURE 881**

ATCAGCGAGGGATTACACGGCGAAATGAGACTGTTCTGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG  
CCCGCCGGGAGAGCCCGGGGACAGACGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC  
TGACCCGGCCTAAGGTCCCTGTCTTGCACTGGATAGCGGCACTACCTCTTCTCCACTAGTGCAATCTGCCGAT  
ATTTTTTTTTGTATCTGGCTGGGACCAAGTAGCCTCACTAACAGTGGCTGGAAATGGGAAGCAAGAGCTGC  
AGCCAGCTTTGTCTGCTCCCTGTACTATTAGTGGTCCAAGGCAAGAAGGGGGAAGATTGTTCTTGGTTCAGTGC  
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCTGCAGAACTGTCCCTTTCCTGGCTGGGAGACAGAAATCTCT  
TAGCCGACATTTGTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCCTACCTCCCTGAGGAGCTGAGTG  
CCCTGCACAGCTGGTTCCAGACACTGAGTACCCAGGAACCATGTGACGAGCTGCAGAGACTGTACTGAAACAGC  
AAGGTGCTCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCCGCTGAGGGAAGGGCTGTACCA  
ATGAGCCTGAGGAGGAGGAGCTGGCTACCTATCTGAGGAGGAGATTGCTATGGCTGTACTGCTTGGGAGAAGG  
GCCTAGAAAGTTTGGCCCCGCTGCGGCCCCAGCAGAAATCCAGTGTGCGCTGTGGCTGGAGAAAGGAATGTGCTCA  
TCACCAGTGCCCTCCCTTACGTCAACAATGTCCCCACCTTGGGAACATCATTGGTTGTGTGCTCAGTGCCGATG  
TCTTTGCCAGGTACTCTCGCTCCGCCAGTGGAAACACCTCTATCTGTGTGGGACAGATGAGTAGGTACAGCAA  
CAGAGACCAAGGCTCTGGAGGAGGACTAACCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA  
TCTACCGCTGGTTTAAACATTTCTGTTTGATATTTTGGTTCGCCACCACCTCCACAGCAGACCAAAATCACCAGG  
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTGTGCTGCAAGATACTGTGGAGCACTGCGATGTGAGCACTGTG  
CTCGCTTCTTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCACT  
GTGACAAGTGTGGCAAGCTCATCAATGCTGTGAGCTTAAGAAGCCTCAGTGTAAAGTCTGCGCATGCGCCTG  
TGGTGCACTGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA  
CATTGCTGGCAGTGACTGGACACCCAATGCCAGTTTATCACCCGTCTTGGCTTCGGGATGGCCCTCAAGCCAC  
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCCTAGAAGGTTTGAAGACAAGGTATTCTATGTCT  
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACCTACACAGACCAGTGGGAGAGATGGTGGAGAACC  
CAGAGCAAGTGGACCTGTATCAGTTTATGGCCAAAGACAATGTTCTCTTCCATAGCTTAGTCTTCTTCTTGTCTCAG  
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA  
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTGGGGACATGGCCAGGACACGGGGATCCCTGCTGACATCTGGC  
GCTTCTATCTGCTGTACATTGGCCCTGAGGGCCAGGACAGTGCTTCTCTGGACGGACCTGCTGCTGAAGAATA  
ATTTAGGCTGAATGAGCCCTGGAAGCGGATTAAAGGCACTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG  
GCTTGGCAGTGAATATAGCTGCTTGCCTCTCTGTGATGCTTCAGCCTTACATGCCCAACGGTTAGTGCCACAATCC  
AGGCCAGCTGAGCTCCCACTCCAGCTGCAAGTATCCTGCTGACAAACTGCTGTGATCCTTACCAGCAGGAC  
ACCAGATTGGCAGAGTCAGTCCCTTGTTCAAAAATGGAAAATGACCAGATTGAAAGTTTAAAGCAGCGCTTTG  
GAGGGGGCCAGGCAAAACGTCGCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAAGCCACAGCAGATAC  
AAGCGCTGTAGGATGAAGTGACAAAACAGGAACATTGTCCGAGACTGAAAGACAAAAGGCAGACAGAAGC  
AGGTTGCTGCGGAGGTGGCAAACTCTTGGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG  
CCCCATAAGGCAAGAAAGAAAGTAAAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA  
ATAAATGTACAATCTCTATA

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**FIGURE 882**

MRLFVSDGVPGCLPVLAAAGRARGRAEVLISTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW  
EQDDL TNQWLEWATELQPALSAALYYLVVQGGKGEDVLGSRRALTHIDHSLSRQNCPLAGETESLADIVLWG  
ALYP LLQDPAYLPEELSALHSWFQTLTSTQEPQRAAETVLKQQGVLA LRPYLQKQPQPSPAEGRAVTNEPEEEEL  
ATLSEEEIAMAVTAWEGLES LPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGNII GCVL SADVFARYSRL  
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHADIYRWFNISFDIFGRTTTTPQTKITQDIFQQLLK  
RGFVLQD TVEQLRCEHCARFLADR FVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL  
FLDL PKLEKRLEEWLGR TLPGSDWTPNAQF ITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKVFYVWF DATIGY  
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHS LVPFPC SALGAEDNYTLVSHLIATEY LNYEDGKF SKSRGV  
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDL LKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T  
PDDQRLLAHVTL ELQHYHQLLEKVRIRDA LRSILTI SRHGNQYIQVN EPWKRIK GSEADRQ RAGTVTGLAVNIAA  
LLSVMLQPYMPTVSATIQAQLQLPP PACSILLTNFLCTLPAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS  
PKPAVVETVTTAKPQQIQALMDEVTKGNI VRELKAQKADKNEVAAEVAKLLDLKKQLAVAEGKPPEAPKGGKKK

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**FIGURE 883**

GGCACGAGGCTGCTGTTTGTCTACTTCTCTGCTTCCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA  
CTTGACGGCCGGGCAGTGCGGCAACCAAAATCGGCGCCAAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA  
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCCGG  
CGGCAAGTACGTGCCCGCCGCCGTGCTCTGGATCTGGAGCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT  
CGGGCAGATCTTCCGGCCGGACAACTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGCCAAGGGGCACTA  
CACAGAAGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA  
GGGTTTCCAGCTGACCCACTCCCTGGGTGGGGGACTGGGTCTGGGATGGGTACCCCTCCTCATCAGCAAGATCCG  
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCCTTCGCCCAAAGTGTGAGACACAGTGGTGGA  
GCCCTACAACGCCACCCCTCTCAGTCCACCAGCTCGTAGAAAAACAGACGAGACCTACTGCATTGATAACGAAGC  
TCTCTACGACATTGTCTCAGAACCCTAAAGCTGACCACGCCACCTATGGTGACCTGAACCACCTGGTGTCTGC  
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTCGGGAAGCTGGCTGTGAA  
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA  
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCCTGCGACCCCG  
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTACGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAAATGCT  
TAATGTCCAAAAACAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAAATGTGAAAACGGCTGTCTGTGACAT  
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT  
CTCCGAGCAGTTTACGGCCATGTTCCGGCGCAAGGCCTTCTGCATGGTACACGGGCAGGGCATGGACGAGAT  
GGAGTTCCACGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA  
GGAGGAGGGCGAGTTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAGA**GCCTTCACTCACTGGGGAAGCAGGGAA  
GCAGTGTGAACCTTTATTCACTCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGTCTGTTTCCCTGT  
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

**FIGURE 884**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDSLQLERINVYNEATGGKYVPRAVLVDLEPGTMS  
VRSGFQGI FRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGT  
LISKIREEYPDRIMNIFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTP TYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQOMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ  
ELFKRISEQFTAMFRKAFLLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEEEEVA

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**FIGURE 885**

CAGGAGAAGCTGACCAGCCGCAAGATGGACAGCCGTGGGGCGGGCGCAGCGAGTCCATCAATGTACCCCTCAAG  
GTGGAGCAGGCAGCCTACACCCGTGATGCCCTGGCCAAGGGGCTCTATGCCCGCCTCTTGACTTCTCGTGGAG  
GCCATCAACCGTGCTATGCAAGAACCCAGGAAGAGTACAGCATCGGTGTGCTGGACATTACGGCTTCGAGATC  
TTCCAGAAAAATGGCTTCGACGAGTTTGCATCAACTTCGTCAATGAGAAGCTGCACAAATCTTTATCGAACTT  
ACCTGAAGGCCGAGCAGGAGGAGTATGTGCAGGAAGGCATCCGCTGGACTCCAATCCAGTACTTCAACAACAAG  
GTGCTCTGTGACCTCATGAAAAACAAGCTGAGCCCCCAGGCATCATGAGCGCTCTGGAGCAGCTGTGCCGCCACC  
ATGCACGCCACGGGGCGGGGAGCAGACCAGACACTGCTGCAGAAGCTGCAGCGGCTGTGGGACCCACAGCAT  
TTCAACAGCTGGAGCGCGGCTTCGTATCCACCCTACGCTGGCAAGTCTCTACGACGTACGCGCTTCTGC  
GAGAGGAACCGAGACGTTCTCTTCTCCGACCTCATAGAGCTGATGCAGTCCAGTGACCAGGCTTCTCTCGGATG  
CTCTTCCCCGAGAAGCTGGATGGAGACAAGAAGGGGCGCCCCAGCACCGCGGCTCCAAGATCAAGAAACAAGCC  
AACGACCTGGTGGCCACACTGATGAGGTGCACACCCCACTACATCCGCTGCATCAAAACCAACGAGACCAAGCAC  
GCCGAGACTGGGAGGAGAACAGAGTCCAGCACCAAGGTGAATACCTGGGCTGAAGGAAAACATCAGGGTGGCG  
AGAGCCGGCTTCGCTACCCGCGCCAGTTTCGCCAAATTCCTGCAGAGGTATGCCATTCTGACCCCCGAGACGTGG  
CCGCGTGGCGTGGGACGAACGCCAGGGCGTCCAGCACCTGCTTCGGGCGGTCAACATGGAGCCCCGACCATC  
CAGATGGGAGCACCAAGGCTTTGTCAAGAACCAGAGTCGCTTTTCTCTGGAGGAGTGCAGAGCGAAAG  
TTCGATGGCTTTGCCCAACCATCCAGAAGGCTGGCGGCGCCACGTGGCTTCGCCGAAGTACGAGGAGATGCGG  
GAGGAAGCTTCCAACATCCTGCTGAACAAGAAGGAGCGGAGGCGCAACAGCATCAATCGGAACCTCGTCCGGGAC  
TACCTGGGCTGGAGAGCGGCCGAGCTGCGTCAGTTCTGGGCAAGAAGGAGCGGTGGACTTCGCCGATTTCG  
GTCACCAAGTACGACCCGCGCTTCAAGCCCATCAAGCGGACTTGATCCTGACGCCCAAGTGTGTGATGTGATT  
GGGCGAGAGAAGATGAAGAAGGGACCTGAGAAAGGTCAGTGTGTGAAATCTTGAAGAAGAAATGGACATCCAG  
GCTCTGCGGGGGGTCTCCCTCAGCACGCGACAGGACGACTTCTTCATCCTCCAAGGAGTATGCGCGCGACAGCTTC  
CTGGAGAGCGCTTTCAAGACCGAGTTTGTCAGCCTTCTGTGCAAGCGCTTCGAGGAGGCGACCGGGAGGCCCTTG  
CCCCCTCACCTTCAGCGCACACTACAGTTTCGGGTGAAGAAGGAGGGCTGGGCGGTGGCGGCGACCCCGCAGCGTC  
ACCTTCTCCCGCGGCTTCGGCGACTTGGCAGTGCTCAAGGTTGGCGGTGCGACCTCACGGTCAGCTGGGCGAT  
GGGCTGCCCAAGAACTCCAAGCCTACCGGAAAGGGATTGGCCAAGGGTAAACCTCGGAGGTGCTCCCAAGCCCCCT  
ACCGGGCGGCCCCCTGGCGCCCCCAAGGATGGATCGAAATGGGCGCCCCCTCTGCCACAGGGGGGGGGCCCCC  
TGCCCCCTGGAGAAATTCATTGGCCAGGGGGGCACCCAGGCCCTCCCCGGCCCTCCGTCCACATCCTCGGAT  
GCCAGCAGACGACCCCGGCGACGTCCGCCCTCAGAGCACAAACAGAAATTCCTCAACGTGCCTGACCAGGGGATG  
GCCGGCATGCAGAGGAAGCGCAGCTGGGGCAACGGCCAGTGCCTGTGGGCGGACCCAAAGCCCCAGCCTCGGACA  
CATGGTCCCAAGTGGCGGGCCCCATACCAAGTACGTGGGCCAAGATGTGGACGAGCTGAGCTTCAACGTGAACGAG  
GTCATTGAGATCCTCATGGAAGATCCTCGGGCTGGTGAAGGGCGGCTTCACGGCCAGGAGGGCTTTTCCCA  
GGAAACTACGTGGAGACTGTGAGCTGGGCCCTGGGATACTGCCCTCTCTTTTCCCGCCCTATCTGCGTGGCGG  
CCTGGTGGGAGGCCAGGCCCTGCCAATGAAAGCCTGTTTACCTGGGCTGCAATAGCTCAAAGTCCAATCCTTT  
GGCCTCCAGTCTTGCACAGGCCCTGGGTCAACAGGTCACGTGTGACGCCCCCGCCCTGGGCCCCGTGTTTTCTC  
CCAACTACACCTGCTGCCCAATGTGCTGTCAAAGGAGTCAACAGCAGAAATTTACCTCCCAA  
CTGCCATGTGATTAGAAATGGGTCTTGAGTCTGTGCTGTTGGCAAGTTCAGGACACAGTGGGAGGGGGG  
CCGGAATCCGC

## FIGURE 886

CGGAGCCAGCGTGGGAGGCCGCTGCCGTGCGCGCCTTGGTTTCTGTTCCTTTTTTTTTTTTTTAACTT  
CCTGCCTATCACACGCAGCCATCAGCCACAAAGACATGACTACCAACGCGGGGCCCTTGCACCCATACTGGCCT  
CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC  
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTGCTGCTGCGGTTGTCCATTGGGGACTTGGCGGCGA  
CTGTCCCTGTGCTGGTTTGCAAGTGTGTGGGTTTCACTACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA  
GACCTGCTTGGAGACCAAGCCTTTTATCTCAACTCTGGAAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG  
GGTGACAACCTTCACAGTGTGCATGGAAACCATCACAGCTTGCCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC  
GCCTTTCTCCGCCAGCATCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG  
CTCTACTTCTGACAGACACCGCGAGGATTCCAGCACGGAGAGCTGGGCCACCCCTCTACTTCTGGTTTTAC  
TTTGTCTTCATGAATGCCCTGTGGCTGGTGTGCTGCCTGGAGTCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT  
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAAGAGCAAGAAGAACTGAGGAGTGGTGACAGGCTCGA  
ACACTGGCCGAGGAGGAGCTCTCTGCTGCCAGAGAGTCTAGTCTGCTCCACAGTTTGGAGGGACAAAGCTA  
ATTGATCTGTCACTCAGGCTCATGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG  
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTAAATCAGGAAATAAAG  
ATCTTGACTCTAAAAAAAAAAAA

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**FIGURE 887**

MTNAGPLHPYWPQHLRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFVAVCGFI  
HLVIEGWFLVLYYEDLLGDQAFSLQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFIL  
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVPGLVLDAVKHLTHAQSTLDAKATKA  
KSKKN

## FIGURE 888

GAATTCGGCACGAGGATGACGGAGCCGGCGCCTCTCCCGAGGACCTTGGGTCAAGGTGGAGTATGCCACAGC  
GACAAACAGCCTGGACCCCGGGCTTTTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATC  
GGTTCACCAAGTGCCCTCTTCTGTCCCCAACACAGATGATGAGGACAGTGATTACCCACGAGGAGGCTACAAGGAG  
TCCTACAAAGACCGCGCGCGCGCACACACTCAGGCTGAGCAGAAGAGGAGGGACGCCATCAAGAGAGGCTAT  
GATGACCTTCAGACCATCGTCCCACTTGGCAGCAGCAGGACTTCTCCATTGGCTCCCAAAAGCTCAGCAAAGCC  
ATCGTTCTACAAAGACCATTGACTACATTCAGTTTTTGCACAAGGAGAAGAAAAGCAGGAGGAGGAGGTGTCC  
ACGTTACGCAAGGATGTCAACGCCCTAAAGATCATGAAAGTGAACATGAGCAGATTGTGAAGGCACACCAAGGAC  
AACCCCCATGAAGGGGAGGACCAGGTCTCTGACCAGGTCAAGTTCAACGTGTTTTCAAGGCATCATGGTTTCCCTG  
TTCAGTCCTTCAATGCCTCCATCTCAGTGGCCAGCTTCCAGGAGCTGTCAAGCTGTGTCTTCAGCTGGATCGAG  
GAGCACTGTAAGCCTCAGACCTCGCGGAGATTGTGATTGGCGTCTGCACCAATTGAAAAACCAAGCTTTACTGA

CCGGTCTTGGAAACCTGGAGAACAGCCAAACAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGTGGGCCC  
GGGAGACTGGTCTACAAACACCACACACTGGACAGCTGGTCTCTACTTGGTGTGTGGTTTCTCCAGCCCCATTTT  
CTCTACAGCGGAGCCGCGGTGTGTGTGTGAAAGCTTCTGATTAATTTATTATATTGACGATAAAACTCAAAC  
CTACCCAGCCTTCCCCCACITCCATGGAAGTCCTTGGGATGGGCGTCTGCTCTGGACACCCAAAGAGCTCCTGC  
CCTCTCAGCCCTTTATTCAAGCCTCAGATTCTGCTCATGATCATATAGATTGGAAACTGTTTTCCTCTGTTG  
TGGTCTCTTGGGCAACATTTGTGGCCCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATGTGGGAGTAGCTG  
TATGGGAGAAAAAGAGTAAGAGGAAATATTTCCACAGCCATGAAGGGTGAAGGGCACCTTGTGCTTAGACTAGG  
GCTGGCTGGTCACTCCAGGTGAGGACAAGGGCTTTCTGGCCATCTCAGGGAGGGGGACCAAGGTTCTCCCTC  
ACCCCATATTCATCACCTTCTCTCTGCTCTGGTGGTAAGGGAAGCCCTCCCGGTTCCACAGGCTATGATG  
CTGCATGGCAGAGGCAGGTATAACACAGCACTACATATTGGAAATTTTTATTTTTCTAAATACCAATGCAGTTT  
TGCTACGGTTACAATTTTGAATATTAAGTACGCTCAAAATCACCTTTCTGTCAAGCATATCTTGGCCTCTCC  
CATGTCTCAGTGTTCCTGCAATTTCTCCAGGACTTGGGGTGGGGTGAAGGCGTACAAAAGATACTTTAAAGG  
GCTCTGGGGTACACAAGCCAGCAGGTCTTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTATAGCAACCT  
CTCTACCTAGTTCTCCAATTCACCTTCTGCTTCTCAGGTTTGATATCTGGCAGGTTTGAATATCCAGAG  
AAATTAATATTTTTATATAAAATTAATTAATAAATATTGCCAATGCTAAAAA



**FIGURE 889**

MTEPGASPEDPWVKVEYAYSDNSLDPGLFVESTRKGSVVSRANSIGSTSASSVPNTDDSDYHQEAYKESYKDR  
RRRAHTQAEQRRDAIKRGYDDLQTIVPTCQQQDFSIGSQKLSKAIVLKTTIDYIQFLHKEKKKQEEVSTLRKD  
VTALKIMKVNYEQIVKAHQDNPEGEDQVSDQVKFNVFQGIMVSLFQSFNASISVASFQELSACVFSWIEEHCKP  
QTLREIVIGVLHQLKNQLY

**FIGURE 890**

ATGGTGAAAAATGACAAAGTCCAAAACTTTCCAAGCGTATCTGCCGAACGTGCACCGAACGTACAGCTGTATCCAC  
TGCAGAGCACACCTGGCCAATCATGACGAGCTCATCTCCAAGTCCTTTCAGGGGAGCCAGGGACGCGCCTACCTC  
TTCAATTCCGTGGTGAACGTGGGCTGCGGCCCTGCAGAGGAGAGGGTCCTTCTCACCGGGCTGCATGCGGTTGCC  
GACATCTACTGCGAGAAGTCAAGACCACGCTCGGGTGGAAATACGAGCATGCCTTTGAGAGCAGTCAGAAATAT  
AAGGAAGGAAAATTCATCATTGAGCTTGCTCATATGATCAAGACAATGGCTGGGAGTAA

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**FIGURE 891**

MVKMTKSKTFQAYLPNCHRTYSCIHCRAHLANHDELISKSFQGSQGRAYLFNSVVNVGCGPAEERVLLTGLHAVA  
DIYCENCKTTLGWKYEHAFESSQYKEGKFIIELAHMIKDNGWE

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**FIGURE 892**

GCGGCCGCGGTGGCCAGGCAACCTATGGGTACCAACGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA  
CTCTCTGGATTCTCTGTAACAGTGGGGCTCAGCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC  
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC  
CGGTGAAGGTCATGAAAGGGGGGGGAAACGAATAAATTGAGCCTTGACGCGAGGCGCAATGCTCGTTGCATCC  
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCAAAATGCCCGCAAAGCCTTGTGCA  
CGCCTTCCGGAAGGAGTTTGTACACGAGGTCTGAGAGACAGAGGCAGCGTGTTGAGCTGCTGGTGCGGTGGTC  
AGCGCGATGCCCAAGGCCAAGGGCAAAACCCGGAGGCAGAAAGTTTGTTACAGTGTC AACCGAAAGCGTCTGAAC  
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCACATCCGACATGCCTGGGACCACGCTAAATCG  
GTACGGCAGAACTTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCTCCGTAAGAGAAAGGTG  
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCCTAAAGAGCTTGACGGAAGCCCTATGTGCTGAATGACCTGGAG  
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA  
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT  
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCTCGATTCTTTGCAGAAGAGG  
AAGATGGAGGTGGAGTAACTGGTTTACATCAGAGCTGCCCGAGGCTGAGGCGTCCCCGGACCAAGTGAAGCTGGA  
GCCAGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCCATGGAATCAGAAGGTTACA  
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACGTGTTCTCAGAGGCTCCAATTTATATTATCTGGGGGTTT  
ACGGAAAAGCCAGAACCTGCTGTTTTACGGGTGGGTGATGTAAATATAGTGTGTACATAATAAGCAAATATATT  
TTAAA

**FIGURE 893**

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMGLAVDPNRAVPLRKRKVK  
MEVDIEERPKELVVRKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRVMVENHGEDYKAMARDEKNYYQDTPKQIRS  
KINVYKRFYPAEWQDFLDSLQKRKMEVE

## FIGURE 894

GGAAATAGGTTAGTTTCAGACAAGCCTGCTTGCCGGAGCTCAGCAGACACCGGCCCTTCGGGGCAGGCCTGGCCCA  
CCGTGGGCTCAGAGCTGCTGCTGGGGCATTAGAACCGGCTCTCCATTGGCATTGGGACCAGAGACCCCGCAAG  
TGGCTGTTTGCTTGGAATCCACTGTACGTCCCCAGGTTTCGGGAGGCCAGGGGCGATGCCAGACCCCGCGG  
CGCACCTGCCCTTCTTCTACGGCAGCATCTCGCGTCCGAGGCCGAGGAGCACCTGAAGCTGGCGGGCATGGCGG  
ACGGGCTCTTCTGCTGCGCCAGTGCCCTGCGCTCGCTGGGCGGCTATGTGCTGCTGCTGCTGCACGATGTGCGCT  
TCCACCACTTTCCCATCGAGCGCCAGCTCAACGGCACCTACGCGATTGCCGGCGGCAAGCGCACTGTGGACCGG  
CAGAGCTCTGCGAGTTCTACTCGCGCGACCCCGACGGGCTGCCCTGCAACCTTCGGCAAGCCGTGCAACCGGCGGT  
CGGGCCTCGAGCCGAGCCGCGGGGTCTTCGACTGCTCGAGAGCCCATGGTGGTGACTACTGTCGCGCAGACGT  
GGAAGCTGGAGGGCAGGCGCCTGGAGCAGGCCATCATCAGCCAGGCCCCGCGAGGTGGAGAAGCTCATTGCTACGA  
CGGCCACGAGCGGATGCCCTGGTACCACAGCAGCCTGACGCGTGAGGAGGCCGAGCGCAACTTTACTCTGGGG  
CGCAGACCGACGGCAAGTTCTGCTGAGGCCGCGGAAGGAGCAGGGCACATACGCCCTGTCCCTCATCTATGGGA  
AGACGGTGTACCACTACCTCATCAGCCAAGACAAGGCGGGCAAGTACTGCATTCCCGAGGGCACCAGTTTGACA  
CGCTCTGGCAGCTGGTGGAGTATCTGAAGCTGAAGGCGGACGGGCTCATCTACTGCTGAAGGAGGCTGCCCCA  
ACAGCAGTGCCAGCAACGCCCTCAGGGGCTGCTGCTCCCACTCCAGCCACCCTCATCCAGTTGACTCATCCTC  
AGAGACGAATCGACACCCCTCAACTCAGATGGATACACCCCTGAGCCAGCAGCATAACGTCCCCAGACAAACCGC  
GGCCGATGCCCATGGACACGAGCGTGTATGAGAGCCCCACAGCGACCCAGAGGAGCTCAAGGACAAGAAGCTCT  
TCCTGAAGCGCGATAACCTCCTCATAGCTGACATTGAACTTGGCTGCGGCAACTTTGGCTCAGTGGCGAGGGG  
TGTACCGCATGCGCAAGAAGCAGATCGAGTGGCCATCAAGGTGCTGAAGCAGGGCACGGAGAAGGCAGACACGG  
AAGAGATGATGCGCGAGGCGCAGATCATGCACAGCTGGACAACCCCTACATCTGTCGGGCTCATTGGCGTCTGCC  
AGGCCGAGGCGCTCATGTGTTGATGGAGATGGCTGGGGGCGGGCGCTGCACAAGTTCTGTTGCGCAAGAGGG  
AGGAGATCCCTGTGAGCAATGTGGCGAGCTGCTGCACAGGTGTCATGGGGTGAAGTACCTGGAGGAGAAGA  
ACTTTGTGCACCGTGACCTGGCGGCCCGCAACGTCCTGCTGGTTAACCGGCACTACGCCAAGATCAGCGACTTTG  
GCCTCTCCAAGCACTGGGTGCCGACGACAGCTACTACACTGCCCGCTCAGCAGGGAAGTGGCCGCTCAAGTGTG  
ACGCACCCGAATGCATCAACTTCGCAAGTTCTCCAGCCGACGCGATGCTGAGACTATGGGGTCACCATGTGGG  
AGGCCCTGTCTACGGCCAGAAGCCCTACAAGAAGATGAAAGGGCCGGAGGTCATGGCCTTCATCGAGCAGGGCA  
AGCGGATGGAGTGCCCAACAGAGTGTCCACCCGAACTGTACGCACTCATGAGTGACTGCTGGATCTACAAGTGGG  
AGGATCGCCCCGAACTTCTGACCGTGGAGCAGCGCATGCGAGCCTGTTACTACAGCCTGGCCAGCAAGGTGGAAG  
GGCCCCAGGACGACACAGAAGGCTGAGGCTGCCGTGTGCTGAGCTCCCGTGCCAGGGGAGCCCTCCACGCC  
GGCTCTTCCCCACCCTCAGCCCCACCCAGGTCCTGCAGTCTGGCTGAGCCCTGCTTGGTTGTCTCCACACACAG  
CTGGGCTGTGGTAGGGGGTGTCTCAGGCCACACCGGCTTGCAATTGCCTGCCCTGGCCCCCTGTCTCTGGCTG  
GGGAGCAGGAGGTCCGGAGGGTGGCGGCTGTGACGCTGTCTTGGGCTGGTGGCTCCCGGAGGGCCCTGAGCTG  
AGGGCATTGCTTACACCGAGCTCTCCCCTGGGCCCTGACATTGGAGCCTGGGCATCCTCAGTGGTCAGGCGTA  
GATCACCAGATAAACCCAGCTTCCCTCTTGAAAAAATAAAAAAATAAAC

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**FIGURE 895**

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCAGCAAAGCCGCCGTGGCGCAATGAAGGTGAA  
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGGCCTCTCCAGTCCGCCGAGGGCGCACCCACGGCCCCGTCT  
CGCCCGCCCGCGCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAGATGCTGAACATATGCCTGGGCAG  
GGCGAAGCCGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCTGACGTGCAAAATCGGTCTCGGACCTGGGTATA  
GGGGCGGGCTCCAGGCGAGGCGGTTCGACGCTCCTGAAAACCTTGC CGCGCGCTCGCGCCACTGCGCCCGGAGCGA  
TGAAGATTGGTTCGCGCCTTGGACGCGGTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA  
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCTGGCTGATCCGG  
ATCAGTATAACTTTTCAAGTCTGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA  
TTGCGATTCTCTTCTCATGATCTGTATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA  
TCATCCCACTTCTCTGTTACCAGATCTTTGACTTTGGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC  
CAAACCTCCATTACGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTCATGTCACTGTAATC  
CTACCTGTTTGGTCTTATTATTCTCTCTGTTTATTAGCATTATCTTGACTTTTAAAGGGTTACTTGATTAGCTGTG  
TTTGGAACTGCTACCGATACATCAATGGTAGGAACCTCCTCTGATGCTCGTGTATGTTACCAGCAATGACACTA  
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCTGCCAAGGAGCCACCGCCACCTTACGTGTCTG  
CCTAAGCCTTCAAGTGGGCGAGCTGAGGCGAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT  
CACTTTTGCCATGAGCCTCTCTGAGCTTGTGTTGCTGAAATGCTACTTTTTTAAATTTAGATGTTAGATTGAA  
AACTGTAGTTTTCAACATATGCTTTGTCTAGAACACTGTGATAGATTAACTGTAGAATTTCTCTGTACGATTGGG  
GATATAATGGCTTCACTAACTTCCCTAGGCATTGAAACTTCCCCAAATCTGATGGACCTAGAAGTCTGCTTT  
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGAATAATGAAAATAAAACCAA  
AATAGACAACTTTTTCTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA  
TCATTGTTCTAATTAGGTAAATAGAAGTCTTATGTATGTGTTACAAGAATTTCCCCACAACATCCTTTATGAC  
TGAAGTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA  
CCAGGCGCTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCAGGGACATGGGGTGACATGCC  
TCGTATGTGTTAGAGGTGGAATGGATGTGTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCCTGGATTAC  
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTTCTGCGCTAGATTGGTTCAAGGAGGTCAATCCAACCTGACTTTAT  
CAAGTGAATTTGGGATATATTTGATATACTTCTGCTTAACAACATGGAAGGGTTTTCTTTTCCCTGCAAGCTA  
CATCTACTGCTTTGAACCTTCCAAGTATGTCTAGTCACCTTTTAAATGTAAACATTTTCAGAAAAATGAGGATT  
GCCTTCTCTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTATATATTCATATGTTACAAAGT  
CAGCAACTCTCCTGTGGTTCATTATTGAATGTGCTGTAATTAAGTTGTTGCAATTAACAAGGTTTGCCCA  
CAAAAAA

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**FIGURE 896**

MVNYAWAGRSQRKLWWRVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMPWTRFYNSCCLC  
CHVRTGITLLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDANMCIAIAISLLMILICAMATYGA  
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNP TCLVLIILLFISIILTF  
KGYLISCVWNCYRYINGRNSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA



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**FIGURE 897**

GGCACGAGGCCGAGTTGCGATGCTGTACTTCTCTTTGTTTTGGCGGCTCGGCCCTCTGCAGAGATGTGGGCAGCT  
GGTCAGGATGGCCATTTCGGGCTCAGCACAGCAACGCAGCCAGACTCAGACTGGGGAAGCAACAGGGGCTGGAC  
AGGCCAGGAGAGCCTGTGGACAGTGATCTCGAGATGTGGGAGTTGCTCGACAGGGGAAAGGACAGGCAGTGTCTG  
TGGCCTGGAGCTATTGCCCTCAGAAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCTCTGTCTGAACAA  
CAAGTACTCGGAGGGTTATCTCGCAAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTGTG  
CCAGCGCCGGGCTTGGAAAGCCTTACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTACTCCGGGTC  
CCAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCCGATGG  
GGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATACGCCACGTCCATCTTCTTCGAGTCTATGCC  
CTATAAGCTCAACCCCAAACCTGGCCCTATTGACTACAACACGCTGGCACTGACTGTCTCGACTTTTCCGGCCACG  
GCTCATCATAGCTGGCACCAGCGCCTATGCTCGCCTCATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGT  
CAAAGCACACCTGCTGGCAGACATGGGCCACATCAGTGGCCTGGTGGCTGCCAAGGTGATTCCTCGCCTTTCAA  
GCACGCGGACATCGTACCACCACTACTACAAGACTCTTCGAGGGGCCAGGTACAGGGCTCATCTTCTACCGGAA  
AGGGGTGAAGGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCCGT  
GTTCCCATCCCTGCAGGGGGGCCCCCAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGCAC  
CCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAAATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGG  
CTACTCACTGGTATCAGGTGGTACTGACAACCACCTGGTGTCTGGTGACCTGCGGCCCAAGGGCCTGGATGGAGC  
TCGGGCTGAGCGGGTGCTAGAGCTTGTATCCACTACTGCCAACAAGAACCTGTCTGGAGACCGAAGTGGCAT  
CACACCGGGCGGCTGCGGCTTGGGGCCCCAGCCTTAACCTTCGACAGTTCCGTGAGGATGACTTCCGGAGAGT  
TGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAA  
ATCCTTCTCTGCTTAAGGACTCAGAAACAAGTCAGCGCTGTGCCAACCTCAGGCAACGGGTGGAGCAGTGTGCCAG  
GGCCTTCCCATGCCTGTTTTGATGAGCATTGAAGGCCAAGTGGGAAATGAGGCCACAGACTCAAAGTTACTCT  
CCTTCCCCCTACCTGGGCCAGTGAATAGAAAGCCTTTCTATTTTTGTGTGCGGAGGGGAAGACCTCTCACITAG  
GGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTAACCTGAGAAGATCTTTTCTTTTTCTTTTTTGGTAA  
CAAGACTTAGAAGGAGGGGCCAGGCACTTCTGTTTGAACCCCTGTCTATGATCAGAGTGCAGAGACGCGTCCCTC  
TTCTTGGGGAAGTTGAGGAGTGCCTTCAGAGCCAGTAGCAGGCAGGGGTGGGTAGGCACCTCTCTCTGTTT  
TTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATTACTGTGGGTGGGGTTCCCTTGGGCCAAACAGTGATTT  
GTCTCCCTCAATGTGTACCCGCTCCGCTCCACACCGCTACCACAAGGACCCCGGGGCTGCAGCCTCCTCTT  
TCTGTCTCTGATCAGAGCCGACACCGACGTGATTAGCAGGCGCAGCAAATTCATTTGTTAAATGAAATTGTAT  
TTTGAAAAAAAAAAAAAAAAAA

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**FIGURE 898**

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTOTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA  
SENFCSRAALEALGSCLNKKYSEGYPGKRYYGGAEEVDEIELLCQRRALEAFDLDPAQGWVNVQPYSGSPANLAV  
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT  
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSFFKHADIVTTTHKTLRGARSGLIFYRKGVKAVD  
PKTGREIPYTFEDRINFVFPSSLQGGPHNHAIAAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG  
GTDNHLVLVDLRPKGLDGARAERVELVSIITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVD FIDE  
GVNIGLEVKSKTAKLQDFKSFLLKDSETSQRLANLRQREVFARAFPMPGFDEH

**FIGURE 899**

[illegible]

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**FIGURE 900**

MHHNKQATENAKEEVRRILGLLDAYLKTRTFLVGERVTLADITVVCTLLWLKQVLEPSFRQAFPNTRWFLTCI  
NQPPQFRAVLGEVKLCEKMAQFDKAKFAETQPKKDTPRKEKGSREEKQKPQAEKKEEKAAAAPAPPEEMDECEQAL  
AAEPKAKDPFAHLPKSTFVLDEFKRRKYSNEDTILSVALPYFWEHFDKDGWSLWYSEYRFPEELTQTFMSCNLITGM  
FQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESYTWKRLDPGSEETQTLVREYFSWE  
GAFQHVGKAFNQGKIFK

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FIGURE 901A

CAAGCCAATTATGGCTCCCTTTCCCAATGGTAGTTTGTGAATGGCTTTAATTCGCGAGGATCTTATAAAAAAAAT  
GCTGCTGCTATGAATATGGGTCGACCATTCAAAAAAATCGTGTGAAGCCTCAGTTTAGGTCATCTGGTGGTTCA  
GAACACTCAACAGAGGGCTCTGTATCTCTGGGGGATGGACAGTTGAACAGATATAGTTTCAAGAACTTTCCAGCT  
GAACGGCATAACCCACAGTAATCTGGGCATCAGGAGCAAACTTACCTCAGAAGGAGACTTCCACTTTGCGAGTG  
GAACAGAAATGGGGACTATGGTAGGGGCAGGAGAATCTCTTCAGAGGTCGAAGACGACGAGAAGATGACAGGATC  
TCAAGTACTCATCTCTCAACAGCTGAATCAAAAGGCTCCAACACCAAAGTTTGACTTATTAGGCTCAAAATTTTCCA  
CCTTTACCTGGAAAGTTTCATCAGAATAATGCCAGGTGAACCTGTTTGGAGAATAGGATGTCTGATGTTGTTAAAGGTG  
TCTACAAGAAAAGGATAATGAAGAGTTGACAAATTAGTTGCCAGTGCCCTGCAGATGAGCAGACAGAATGCACATT  
CTGCCAGCAACTCAATATAGATACCAAGTTCTCCATGTGCTGCTGAGCTTACTGCATTAAAGCACAACCTCAGCAAG  
AAAAGGATCTAATAGAAAGTTTCTCTGTTTCCAGAAGGATGGCTCAATCAGACAACTATACCAGTTTCTCTCCAA  
GTACTACAAGCCATCGAGGGCAAGTACTGCTTCACCATGTAATAATAACATAAATGCAGCTACAGCTGTGGCTC  
TACAGGAACCCCGAAAGTTAAGTTATGCTGAAGTGTGCCAGAAGCCCCCTAAAGAGCCATCTTCAGTTCTTTGTGC  
AGCCACTACGGGAACCTTCGCTCCAATGTGGTGCTCCCAACCAAAATGAAGACAATGGAGCTCTCGAGAATCCG  
TTGAGAAACCATGAGAAAGCCAGAAGCAAGGGCTAGTAAGGATTATTTCTGGCTTCGAGGCAATATAATCCCA  
GGGGAGCAGCAGGAAAAATCAGGGAACAGAGACGCCAGTTTAGCCATAGGGCTATACCTCAGGAGTGACTCGAC  
GTAATGGCAAGAGCAATATGTGCCACCGAGTACCCAAAAGTAAAAACAACAAAATATTCAAAAATTCACCTC  
TCTTCCCAATAACTTGAAGTGTGGCTATATTGAAGCTGTTTGGAGGGGAGGGGGTAGCCAGGAAGGAACAAGA  
AAGAGTAGCTGCATTTATTATGAGTTTGGAGTTGTGAGTGATAGGATCCCAAAATTCATCTCTAATGTGGTTT  
TTAAATGCTGGAGGATTCCAATCAATATAAATATATATATATATACACACATATATAAAAGTATAATTTT  
TCTATTTTGTGTTTGGTTTAAATTTGCAGAGATTTGCTGCCAGGAATCAATTTTGGGGTTCAGATTTAGCTTG  
GAAGAAAAAAGAAACATACATCTCTCAGTATAGGAGATGAGGGAATGAGAGAAAAATTTTITGAAGAAGCAT  
TTCTGTAAATTAGAAATTACTTTTTTAACTATTAAAGTTTGGCTTGAAGAAATGCCATCTCTGACTATATGG  
CCTTGATTGCAAGCAGATCAGTGGCTGGGGTGCTGTGTGGGTGTGAGTGTGTACAAGAGCGGATTGAAGCCA  
AATCTGTTGTCTAGTTAGTAAATGATTTGAAACTGAATGTAATCTTGAGTAGATTTTGTCTAGTTTGAAA  
TTTAGCTGCTTTTGGACCTTACTAATATTTTCATTTAACAGTGTGAAAATCTCTGATTGACTATAGAGATGTGA  
CTACCAATCAGTTTGATCTCAAGGAAAGGGGTTATTCAAGAAATGAAAAATTCATCTTGACCTCAGTGCAAT  
CGGTCAAATGGATTTCAGAGGTTTAAACTTCCCTGTGATTTCCCTGAATACCCCCAAAATGAGAAACAAAATTT  
TTTTCTTACTCCATTTGTACTCTCTGTTCTTGAAGTCCCAACCCACAGAAAGCAAAATACCAACTACCTCAT  
TCAATTGTGTGTTGTAATGCTTTGAGCAGTCTAGTCAAAATCATATAAATTTGTTCAAAATTCAGAAATGAACA  
TTGAAGTATTAACCTCTCTGTTTCACACATTAGAATTTTAGCTCCCAAGATGGTAGGGCAGACTGACCGTACAGT  
AATTTATTTGTGCTGTAGTGTAAAGTATAAGCATAGTAAGTACTCTTAAAGTGTAAATATGAGAAGTAAAAA  
AATTTTTTTTAAAGGCTTAATTTGGGAGGGGGACTTATTTCTGTTTACAGTGATTAACCTTCTCTCCCTCTCT  
TCTCCCCCACACCAACAAAATACAGTTTGGAAATCTACTGAAACAGTACCAGCAAGTCATGAGATTTTTAGTA  
AAGATGAGAAGATGGTGAAGAAAAATAGTGATAATTTCTCAGTGAATAAGTTGTAGCTCTCATATACTAAA  
TAGACAAGTTTACATGCTGTTATTTGAAAAATGACTAAAAATATAAAAGTCTGTTGTGTTGATCTGTTTAAAT  
CATACCATGTTTCAGAGTTCTATGTAAGGTGGGTTTTATTTTCTTTTAAAGGATAGTTTGTAAATAGTAAGACTG  
TCCCATATGTTAGTAAATACATATGTACAAATGAAACTGTAATTTGTGAACACTGAAAAGCACCATTGTGACA  
TAGAGTAAACCTTTAGTAATTTTAAAGTGAATGAAATGGTGGTTAAATTCATTACTTGAATTTCAATCT  
TCCAACTCAAGTTAAGCTTTGGAGATACATGTTAGTGGTTAACTGTTAAGAGCTTTGAAAACACTGCACATATC  
TGTACAAGCCAGAAATTAATTTCTTGACTTATTTAGCTTGGCAGTTGCTTTGATTTGATTTTATGATGAC  
ATGGGTATACTATAATTTACTCAGTTTGAACATATTTCAATTTACACACTATTTTAAAAATTTGCCCTACTAGGT  
GAAACATAACAAATAAACTACTCTGTGCTGAAATTTGGGGGAAGTTTAGGTCCTTTAAAAAACAATATTAATCAT  
GACTACATCTATGATAAAAGTGCTTATTTTGGTTTACTAAGATAATGCGAGTGGTGGAAATGATAAAGCTTTTAA  
GTGTTAACATCCCTTGAATGCGTTGGAATTTTCAGAGAATAAACATTTTGTAAAAATCACTTGGTAAGGATTATAAA  
CTTAATTAATGCACTTAAAAAGAAACATTACTTTTTTAAACAATGTGTCACAAAATGAGGTCTGTGATTTCTGT  
ATGCTGTGTGACTTACTGTTAGTCCAGCTCTAAAAATTTAAAGTTGTAATTTGAAATCAAGAAAAAGAGCCCTTC  
TTTTGAAGAAAGCAAGTATATTTTGTCTTTTACTTCAAATGTTATTTAAAGTAGAAATTTAAITTTGTAGATATA  
ACCTTTAAAAATTTTCTCATTAAAGACAATGTTTTAAATTTAAATTTGCTCATTACATCTAATAGTTCCCAATTTGA

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**FIGURE 901B**

TGGCATGTATAGGGAAGAGTGANNNNNNNNNNNNNNNNNNNNNNNAATATTTATATATATTCACAGTATG  
TATTTAGCATTATTTTATTACAGCAGATTTAAAGTTTGTATCTAAATAATGCCTATGAGTTGTGTGAAGCTCTT  
GGCTTTTTTCCAACGTTACTTTGTAACATAAGGGTGGATGTTTCATTGTAGTTTATTTATTTGGTCTTTAGAT  
GGAGGAATTTAAAAAATCAAAATTTTCTCTTCACCTTTATGACTTGACATTTCCITGATCTGTTGGAGGCTAAAA  
GTAGGTATAAATGATATTGAATGTTGGGTATAGTGATACTCTGCCATAGTTCTTACTGCATGAAGAGAACAAGAG  
TCACACAAGTTCACCACTTTGCACCTTCATAGAGAAGGTACATAGAGACATTGC AAAACCTGTCTCCATTGTCTAT  
CCTGATAATTAAAGGTTTTTCATAATACCTAGGGCCTGTCTCTGAGTAATTTTAATTTTGCCAAATACACTGACATT  
TAAATAGTGATCCATCTAAATTTTTTTCAGCTGGGTTTTGAGGAATATAAGAGCTTTCAATGATAAAGGTTTGT  
TGTAAGTGTCTTATGTGCTGAATTTGCAGATGATCAGATGCTGTGCAGAAATTCGATTATTTTTGTGTTCCATAAA  
ATTAAGATAGCTTGAATATTTTACATTCCTTTTCTTTTTTAAATAAACAGGTTTGCTTTGGAAGGCTTAA  
TGATGGAATGTTAGCATCTTCACTAGGTAAGAAGAACAAAAAGAATGTTGCTGGAACGTAAATAGTATTTAA  
AAGTTAATGAACACTTCTCTAGTTTTCTTAGTTATGGCCTTAATAATTAGTCTCTTGCGTTAAATGCCACTGGT  
TTTACTTTGACACAGTTGAACAACACTGGGGTTAAGTCTCTGGTATTTAGGCTGGCAATATATATATTAACCATA  
TTTTAAAAGTACCAATTTTGTTTTTACAGAAAAGATAAAACTCAAAGAGAACAGTGATTCTCTCTGAGGGGCT  
TTTATAAATTTAACTATAATATATGATGGATTTTTTCCTAATTTTTATATTTCCTTACAATTTTGGTGGCCA  
TTAATTTAACTTTTAGGCTTTTGGGCATATGCTAGTCTGAGCTTCCGAAAAGATACATATATGTTTCCCTTTTCAT  
TAGCTGAATGAGGATATTTTAAAGTTGAAAGAGAATTTATTTTCAAGTTGTGAGTAAATCCTCCTTTGAAAT  
CACCTGATTATTAGATAACTTAAAGTTTATTTTTAAAGCTGACAACCTTTTATGAATCTTCGAGTTGACAGTTC  
CTAAAAGCGTAACTCAGATATTAATGGGCTGTGTATTAATGGTTTTTATTTTTCAGTTTGCAGCAGACAACACTG  
TTGAAATATCCATATCAACTTGATTTTTTAACTTAATTCAGGTGTCCTTTGCATCTCTTAAATGTTGGGGGTGG  
GGTCAGAGCCAGTTATCCGGCTTCGTTTTGTGCGATTGCTTAGATTTGTCTGTGTGCAAACTGTTTACCCCC  
AAAATTTGGTGTGACACATGCTCATGCATAAAATGTTAAATGAGTACATCCTTGTAATTTGTATTTGTTTTCAACA  
TCGCCAAGGTGCTATGGGAAATTAACAAAATTAGAAAAAAAATAAAATTTATTAAGCAGAAAAA

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**FIGURE 902**

MNMGRPFQKNRVKQFRSSGGSEHSTEGSVSLGDGQLNRYSSRNFP AERHNPTVTIGHQEQTYLQKETSTLQVEQN  
GDYGRGRRTLFRGRRRREDDRISRPHFSTAESKAPT PKFDLLASNFPPLPGSSSRMPGELVWRIGCLMLLKVSTK  
KRIMKSTISCPVPADEQTECTSAQQLNMSTSSPCAELTALSTTQOEKDLIEDSSVQKDGLNQTTIPVSPSTTK  
PSRASTASPCNNNINAATAVALQEPRKLSYAEVCQKPPKEPSSVLVQPLRELRSNVVSPTKNEDNGAPENSVEKP  
HEKPEARASKDYSGFRGNIIPRGAAGKIREQRRQFSHRAIPQGVTRRNGKEQYVPPRSPK

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FIGURE 903

AAAAGGGAAGCCTGCAACAAGTTAAGCTGAAGACCGAAGCAAGAGCTGGTTACGCCCTGCCAGTGGAGACATGGG  
CCCCGCATCCAGGATGCAACCAAGTAATCTGAGAGAGCCCTGCAGGCCCTCACAGCCCTCCAAGACAGATGGGAA  
AGAATTAGCTGGGACCATGGATGGAGAAGGGACGCTCTTCAGACTGAAAGCCCTCAGTCTGGCAGCATTTAAC  
AGAGGAGACTTGAGGTCAGGGCCCTTGAAGGTGATGTTTGTGGTGGAGCCCTCTGGCCAGGAGACACAGT  
AGTCCAGGGAGACCTGCAGGAGACCACCGTGGTGACAGGCCCTGGGACCAGACACAGGACCTGGAAGGCCAGAG  
CCCTCCACAGAGCCTGCCTTCAACCCCCAAAGCAGCTTGGTTGAGGGAGAGGGCCCTGCTCCAGCAGTGACGA  
TGACACCGACTGGACATGGAAGGTCTGCGGAGAGCGCGGGCCGGAGGCCCGCCACCTCAGCCCAATGGTGCC  
CCTGGCTGTGGAGAACCAGGCTGGGGGTGAGGGTGACGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCTCCT  
TGGGGCCCTGGTTCTGCTTGGCCTGGGGGTCTCCTCTTCTCAGGTGGCCCTCTCAGAGTCTGAGACTGGGCCCAT  
GGAGGAAGTGGAGCGGACAGTCTCTCCAGACCCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAG  
GGAACAGCTGCAGGCCCAAGTGCCTCTGACAGTGTCCCAAGCCTGCAAAACATGGGTCTTCTGTGGACAAGCT  
GGCCAAGGAGAACCAGGACATCCGGTGTCTGACAGCCAGCTGCAGGCCCAAAAGGAAGAGCTTACAGAGCTGAT  
GCACCAAGCCAAAGGGCTAGAGGAGGAAGAATGCCAGCTCCGGGGGCTCTGCAGCAGGGCGAAGCCTTCAGCG  
GGCTCTGGAGTGCAGAGTGCAGCAGCTGCGGGCCCGGCTCCAGGGGCTGGAGGCCAGCTGTGTCGGGGCCGAGA  
TGGGGTGTGCCTCAGTGGGGATAGAGGCCCAAGGGTGACAAGGGCATCAGGGAGCAAGGCCCAAGGGAGCAGGA  
GCCAGAATCAGCTCTCCGAGAGCAGAAGGAACAGCTGGAGGCTGAGGCCACAGGCATTAAGGCAAGAGTTAGAGAG  
GCAGCGACGGCTGCTGGGGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCCGGGGACCCAGC  
TCATGTGCTGGCTGGGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCT  
TGGGGTCTCTGCCAATGCCTCAAAGGCCCTGGCACCAGAAGTCCCACTTCCAGAAATCTAGGGAGTGGAGTGGAAA  
GGAAAGTGGTGGGATGGGCAGAGAGACCGGAAGGCTGAGCACTGGAACATAAGAAGGAAGAATCTGGCCGGGA  
AAGGAAGAAGAAGTGGGGAGGTGAGGAGGACAGGGAGCCAGGAGAGGTGGAAGGAGGGCAGCCAGGGGTGGA  
GGAGTCCGGGAGCAAGAAGGAGGGCAAGCGACAGGGCCCAAGGAACCCCAAGGAAAGTGGTAGCTTCCACTC  
CTCTGGAGAAAAGCAGAAGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCTGCCATCCTGGGC  
AGAGCTGTTGAGGCCCAAGTACCGGGGCAACCCAGGGCTGCTCAGGTGTGGACAGTGTGCCCGGAGGAGGCCCT  
GACTTTCTTTGGCAGAGAGCTAGCCCCAGTGCAGGCAACAGGAGCTGGCCTCTCTGCTGAAGAACATACTTTGGCAGC  
GCTGCCCTGGGCTGGGACAGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGGATGGCATCTTCCG  
TCATGACCGCTCCGCTTCCGGGATTTTGTGATGCCCTGGAGGACAGCTGGAGGAGGTGGCTGTGCAACAGAC  
AGGTGATGATGATGAAGTAGATGACTTTGAGGACTTCATCTTCAGCCACTCTTTTGAGACAAAGCAGCTGAAGAA  
GAGGTGAGGGAAGAAGCAAGCACTCAAGAGCCCAAGAGCTGCGGGGCCAGGGAGGGGACAGCCATAGCCA  
CCACCAACCAACCCGGGGCTGACACCTGCCCAACAGGGAATGGCCTTGGCTGGCCAGCCCAAGATCCCAGCG  
TTATCTAACTCTGGAGGGTGGACTCTGTCTGGCTGTTTGGTGTCTCAGATATCTTTCACACAGTAGAGCAA  
AATCAGCAGCCCTGCACTGATGTCACTTTATGTAGAAAAAGGCCCTTAGCTGAGACTGTGTTGCCCTATGCAAA  
TGCATGCAAAATACTCCAGGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGAGATGGGAGAGGAGCC  
TGTTTGGGTGGGGTCTGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAAGTGTATGTC  
CCATAGTGGGCCCTTGACCCACATGCTGACCGGTGCTTGGGATTTGACTAGAGTGTCTGGCTCGAGGCCCAAGC  
ACGAGGACTTACCTGGGGTTTGTGATGTTTGAAGCAGCTGCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTT  
TTTATCCCTTGCTTCTCCACGGCTTCACTCCCTATGTGAAGCTGTAGACTCAGATCCCAATAAGTGTCTGTTGC  
AGCTATGACTGAGTGTGTTTCAAGCAGAGGGGACACCCCAAGCTGCTGAATGCTGAGTGGTCCATCCAG  
GCATCTGTAATGCCCCCTTGTCTGTATCCCCCTTTGCCCTTGCCCTTGCCCTTCCAAACAAACCTTAGGCCCTTG  
AGAAGCTGATACCTCTCTCTTTGCTCAGAGTGCCTTGGCCCCACCCCTGGGAGATGTACAAATTTAGTGTGGG  
TTTTGAGTCTGAGCCTCAGCTCAAAATCCAGGCCAAGTGATCTTGGGCAAGTATATCTCTGGGACTTTGGGTT  
CTTATCTCTCAAAAGGCGATGGAAGGCTGGGGAAGTGATTAATAAAAGCAACCGCAAGAAAAATGCC



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**FIGURE 904**

MDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILTEETE VKGTLEGDVCGVEPPGPGD TVVQGD  
LQETT VVTGLGPD TDLEGQSP PQSLPSTPKAAWFREEGRCSSDDDDTDVDMEGLRRRRGREAGPPQPMVPLAVE  
NQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPMEEVERQVLPDPEVLEAVGDRQDGLREQLQ  
APVPPDSVPSLQNMGLLLD KLAKENQDIRLLQAQLQAQKEELQSLMHQPKGLEEENAQLRGALQQGEAFQRALES  
ELQQLRARLQGLEADCVRGPDGVCLSGDRGPQGDKAIREQGFREQEFELSFPPKQKEQLEAEAQALRQELERQRL  
LGSVQQDLERSLQDASRGDPAHAGLAELGHLAQLQGLLENWQDPCV SANASKAWHKSHFQNSREWSGKEKWW  
DGQRDRKA EHWKHKKEESGRERKKNWGGQEDREPAGRWKEGRPRVEESGSKKEGKRQGPKEPPRKSGSFHSSGEK  
QKQPRWREGTKD SHDPLPSWAE LLRPKYRAPQGCSGVDECARQEGLTFFGTE LAPVRQQELASLLR TYLARLPWA  
GQLTKELPLSPAFFGEDGIFRHRDLRF RFDVDALEDSLEEVA VQQTGDDDEVD DFE DFI FSHFFGDKALKKRSGK  
KDKHSQSPRAAGPREGSHSHHHHHHRG

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**FIGURE 905**

CGAGG**ATG**TGCGTGGGGGCTCGGCGGTGGGCCGCGGGCCGTGTGCGGCTCTGCTCCTCTGGGCTGGGGCTGA  
GCACCGTGACGGGGCTCCACTGTGTGCGGGACACCTACCCAGCAACGACCGGTGCTGCCACGAGTGCAGGCCAG  
GCAACGGGATGGTGAGCCGCTGCAGCCGCTCCAGAACACGGTGTGCCGTCCGTGCGGGCCGGGCTTCTACAACG  
ACGTGGTCAGCTCCAAGCCGTGCAAGCCCTGCACGTGGTGAACCTCAGAAAGTGGGAGTGAGCGGAAGCAGCTGT  
GCACGGCCACACAGGACACAGTCTGCCGCTGCCGGGCGGGCACCCAGCCCTGGACAGCTACAAGCCTGGAGTTG  
ACTGTGCCCCCTGCCCTCCAGGGCACTTCTCCCAAGGCGACAACCAGGCCCTGCAAGCCCTGGACCAACTGCACCT  
TGGCTGGGAAGCACACCCCTGCAGCCGGCCAGCAATAGCTCGGACGCAATCTGTGAGGACAGGGACCCCCAGCCA  
CGCAGCCCCAGGAGACCCAGGGCCCCCGGCCAGGCCATCACTGTCCAGCCCACTGAAGCCTGGCCCAAGAACCT  
CACAGGGACCCTCCACCCGGCCCGTGGAGTCCCCGGGGGCGGTGCGGTTGCCGCCATCCTGGGCTGGGGCTGG  
TGCTGGGGCTGCTGGGGCCCCCTGGCCATCCTGCTGGCCCTGTACCTGCTCCGGAGGGACCAGAGGCTGCCCCCG  
ATGCCACAAAGCCCCCTGGGGAGGCAAGTTCCGGACCCCATCCAAGAGGAGCAGGCCGACGCCCACTCCAACC  
TGCCCAAGATC**TGA**CTGGGCCACCAAGGTGGACGCTGGGCCCGCCAGGCTGGAGCCCGGAGGGTCTGCTGGG  
CGAGCAGGGCAGGTGCAGGCCGCTGCCCGCCACGCTCCTGGGCCAACTCTGCACCGTTCTAGGTGCCGATGGC  
TGCTCCGGCTCTCTGCTTACGTATGCCATGCATACCTCCTGCCCGCGGGACCACAATAAAACCTTGGCAGAC  
GGGAGTCTCCGACCGGCAAAAAAAAAAAAAAAAAA

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**FIGURE 906**

MCVGARRLGRGPCAALLLLGLGLSTVTGLHCVGDTYPSNDRCCHECRPGNGMVSRCRSQNTVCRPCGPGFYNDV  
VSSKPKPCTWCNLRSGSERKQLCTATQDTVCRCRAGTQPLDSYKPGVDCAPCPPGHFSPGDNQACKPWTNCTLA  
GKHTLQPASNSSDAICEDRDPATQPQETQGGPPARPITVQPTAWPRTSQGPSTRPVEVPGGRAVAAILGLGLVL  
GLLGPLAILLALYLLRRDQRLPPDAHKKPPGGGSFRTPIQEEQADAHSTLAKI

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**FIGURE 907**

ATGACCAAAAGCTGATCTCATAAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTT  
CAGGCTGGTGCAGACATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATTCTGCCTACTTTGGTGGCAGAGAAA  
GTGGTTGTGATCACAAGACCAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCCTTCACTGTG  
CGTGCTGACCATTGGTGAGCCCATTTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTAC  
CTAGAAGAGAGGCGGGTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTTCATAGGCTATCCCATCACCCCTTTATTTG  
GAGAAGGAACGAGAGAAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAGGTGAGAAAGAAGAGGAAGATAAA  
GATGATGAAGAAAAGCCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAAGGATAAGAAGAAG  
AAAAC TAAGAAGATCAAAGAGAAATACATTGATCAGGAAGAATAAACAGACCAAGCCCTATTGGACCAGAAAC  
CCTGATGACATCACCCAAGAGGAGTATGGAGAATTCTACAAGAGCCTCCTAATGACTGGGAAGACCCTTTGGCA  
GTCAAGCATTTTCTGTAGAAGGTTCAGTTGGAATTCAGGGCATTGCTATTATTCTCGTCGGGCTCCCTTTTAC  
CTTTTGTAGAACAAGAAGAAAAGAAACAACATCAAACTCTATGTCCGCCGTGTGTTTCATCATGGACAGCTGTGAT  
GAGTTGATACCAGAGTATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCTGAACTCTCCCGA  
GAAATGCTCCAGCAGAGCAAAATCTTGAAAGTCATTCCGAAAAACATTGTTAAGAAGTGCCCTTGAGCTTCTCTCT  
GAGCTGGCAGAAGACAAGGAGAATTACAAGAAATTCATGAGGCATTCTCAAAAAATCTCAAGCTTGGAAATCCCA  
GAAGATCCACTAACCGCCGCCGCTGTCTGAGCTGCTGCCGTATCATACCTCCCGAGTCTGGAGATGAGATGACA  
TCTCTGTGAGAGTATGTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAGAG  
CAGGTGGCCAACTCAGCTTTTGTGGAGCGAGTGCAGAAACGGGGCTTCGAGGTGGTATATATGACCGACCCCAT  
GACGAGTACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAG  
CTGCCGTGAGGATGAGGAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCCAAAGTTTGAGAACCTCTGCAAGCTCATG  
AAAGAAATCTTAGATAAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTACCTTGTGCTGATTGTG  
ACCGACACCTACGGCTGGACAGCCAATATGGAGCGGATCATGAAAGCCCAAGGCATCTCGGGACAACCTCCACCATG  
GGCTATATGATGGCCAAAAGCACCTGGAGATCAACCTTGACCACCCCATTTGGAGACGCTGCGGCAGAGGGCT  
GAGGCCGACAAGATGATAAGGCAGTTAAGGACCTGGTGGTGTGCTGTTTGAACCCGCCCTGCTATCTTCTGGC  
TTTTCCCTTGAGGATCCCCAGACCCATCCAACCGCATCTATCGCATGATCAAGCTAGGCTCAGGTATTGATGAA  
GATGAAGTGGCAGCAGAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCG  
TCTGCGATGGAAGAAGTCGATTAGSTTAGGAGTTTCATAGTTGGAAAACCTTGTCCTTGTATAGTGTCCCCATGG  
GCTCCCATGCAAGCTCGAGTGCCCTGCTCCCACTGCTCCCTGCTGGTGTCTAGTGTTTTTT

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**FIGURE 908**

MTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHNDDEQYAWESSAGGSFTV  
RADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEISDDEAEEKGEKEEEDK  
DDEEKPKIEDVGSDEEDDSGDKKKKTKKIKEYIDQEELNKTKEIWTNRNPDDITQEEYGEFYKSLTNDWEDHLA  
VKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLNFIIRGVVDSDELPLNISR  
EMLQQSKILKVIKKNIVKKCLELFSLEAEDKENYKKFYEAFSKNLKLGIHEDSTNRRLSELLRYHTSQSGDEMT  
SLSEYVSRMKETQKSIYYITGESKEQVANSFVERVRKRGFEVVMTEPIDEYCVQQLKEFDGKSLVSVTKEGLE  
LPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGTANMERIMKAQALRDNSTM  
GYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVVLLFETALLSSGGSLEDPTHTSNRIYRMIKLGLGIDE  
DEVAAEEPNAAVPDEIPPLEGDEDA SRMEEVD

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**FIGURE 909**

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACC**ATG**STGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC  
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC  
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGT  
GGCCGACGCGCTGACCAACGCGGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA  
CGCGCACAAAGCTTCGGGTGGACCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA  
CCTCCCCGCCGAGTTACCCCTGCGGTGCACGCCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC  
CTCCAAATACCGT**TAA**GCTGGAGCCTCGGTAGCCGTTCTCTGCCCGCTGGGCCTCCCAACGGGCCCTCCTCCC  
CTCCTTGACCGGCCCTTCTGGTCTTTGAATAAAGTCTGAGTGGCGGC

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**FIGURE 910**

MVLSPADKTNVKAANGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV  
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 911

GGAGTGC GGGGCGCCCGGCCAGGGGAGCCGCACAGGCCATGCAATTGCAAAGATAGACCAGCTTTTCCAGTTAA  
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAGCCGATGACATGTCAGA  
CGATCAGGGTACTTCTGTGCAAAAGTAAAAGCCCCGATTAGAGGCCCTTTTGGACACCTTGGAAAACAACTGTCA  
TGTGGGTTCTGACATAGCACTTTAGACCAGAACTTGTCAACGGGAAGGGTCCCTTGATATACTTTTAAAGAAATAG  
AATCGAAACCAAGTATTGGCCAGAGCAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT  
TGTGGACCAACAATAACTAAATTTCTGAAGCCCTCTCCCTCCAGGGAGGCCAATAAATGCCCAGCGAGAAGACACTGG  
GGATCAGCAGGGGTTGTTGAAGGCCATTGACAGCAGACAAGTGGCATTTCCTGCGAGAGACCCCTTCAGACATTCG  
TTGCAAAACAGAGGAGGAGGGTGTGTGGCTGTGGAGGTGCAGGAGGAGAGGGCGACTCCCAGGAATGTTCCGCCAG  
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG  
CATCTCTGTTCAAGGGGAAGGTGCCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAATCAAGTC  
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCTTGAGAGTGAGGTGCTGGAATCTTCCCCGAAGAAGACTC  
TGTA CTAGCCATTGCTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCGCCCTGCTCCCCCAAAGCA  
GCACAGCAGTACCAGTCCCTCCCCACCTCCACGCCCTCCCGAGAATAACTAAGAAATTCGTCAAAGGCTCTAC  
AGAGAAGAACAGCTCAGACTGCAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAGAAGGGA  
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAAGGAGGAGGCCAAGAAGAGGAGGAAGGAAGGA  
GCTTAAGGAAAAGGAGAGCGCGGAGAAAGCGGAGAAAGGATGAGAAGGAGAAGGCGGAGAGCAGCGGCTCAAGGA  
GGAGCGGCGCAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAGAAGAGAAACG  
GTTAAGAGAAGAGAAGAGAGCCGCTTAAGACAGAGAAGGCCAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC  
ACAGGCCCCCAAGACCCCTGGCCCGGCTCTGTGGGAAGTTTGGCCCCCTTTGAAATTAAGAGCACATGGTCTGGC  
CCCTCGGCGTCCGAGCCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACAGCTCCTCCAGCAGCAGCGCGGCA  
GTTCTCTCTGTTGAAAGACCTCAAGGCCGCGCAGCCCTGAGGTCCGGACCCAGCAGCTTTCCACCCGGAATGC  
AGATATTTTTTAACGATGATGTCGTCATCTGTGAGCGTGGGAAGGGCGACGGTGTCTCCGAGAGGAGGAAGTTTGG  
CAGGATGAAGCTCCTGCAAGTTCTGTGAGAACCACCGGCTGCTACTGGGGTACTCGGAATAAGAAGACGGCACT  
CATCCGCGCGGAGACCCCTGGGCCCAAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGTATGAGGATGGGA  
AGAAGAGGAGCTGGGGAGTCCCTGTCCACAGTGAGGGGATGATGATGAGCAGATGGGAGAGGATGAAGATGA  
GGACGATGGTTTCTTTGTGCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCCTGA  
GAACCATAAAGTCCGCGCAGAACTGAAGGCCAAGGAGTGGGACGAGTTCTCTGGCTAAGGGGAAGCGCTTTGCGGT  
CCTGCAACCTGTGAAGATCGGCTGCTGTGTGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA  
GCAGTTCGCAGCCTGCTTCTTGGAGACCCCTGCCGCGCCAGGAGGAGCAGACGCCCAAGGCTCCAAAGCGGAGAG  
GAGAGACGAGCAGATCTTGGCCCACTGTCTGCCGCTCTTGACCGCAATGTGAACGGGAGCAAGGTATCATATCGG  
GGAGTTCAGGAGCACTGCCGCGGGGACTGTCTAGCAACCAACCGGCGAGCCGCGGACGCCCTCCACCACCTTA  
CCTGCACACCCCAACCCAGCAGGATGCCGCCATCCCTCTAAGTCCCGGCTCAAGCGGCTCAITTTCCAGAA  
CTCAGTGTATGAGAAGCGGCTGACTTCAGGATGTGCTGGTACGTGCACCCGAGGTGCTACAGAGCTTCCAGCA  
GGAGCACTGCCGCTGCCGTCAGTGGAGCTATGTGACATCGTGCCCTGGGCCCCAAGAGGACAGTGGGAG  
CTCCCTCTCCAGGGGCCCAGCGAGGCCACTCCATCTCGCTGAAGAGAAAGTACGCGGGCAGCATGTGCACTAC  
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTTGGTGTGAAGACATGGACGGCTTCCAGGCAGACACGGA  
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCTGGATGTCCCGGATGCTGTGGAGGTCCAAAGCCCGTGTGG  
AGCGCTTCCGAGCTGGGGTGGTGTGGGGGTGGACACCGGCAAGGCGCACTGACCGCGAGCCCACTGGGCTG  
ATCTCTGAGCAGCGGGTGACGTATGTGAAGACGCTTAGGGTGTCTCCCCACAGCAGATATTGAGACGCTCA  
ATTCTGTGTAAAGAGCACTTTGTCTGTCTTACGGACCTCCCCAAAGTGTGACAGTCTATATAGAGTCTGG  
ATTAGTCTCTTTGATATTGTAAAAAATTCGCCAAGAGCCGATATGAATCTGCCCTTTAATAAGCATTATTGA  
GATTGCTGGCTATTGGGAAGCTGCGGGCACAGGA



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**FIGURE 912**

MDCKDRPAFFVKKLIQARLPFKRLNLVPGKADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN  
GKGPLDNFLRNRIETSIGQSTVIIIDLTEDSNEQPDSDLVDHNKLNSEASPSREAIINGQREDTGDQQGLLKAIQNDK  
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVPMMVLQ  
DILAVRPPQIKSLPATPQGKNMTPESVLESFPEEDSVLSHSSLSPSSTSSPEGPPAPPKQHSSTSPFPTSTPL  
RRITKKFVKGSTENKNLRLQRDQERLGKQLKLABERREEKEKLKEEAKRAKEEAKKKKEEELKEKERREKREKD  
EKEKAQQLKEERRKERQEALAEKLEEKRKKEEELKREEEKRIKAEKAEITRFFQPKPTQAPKTLAGSCGKF  
APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQQSGEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG  
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDEEWEEEEPESLSHSEG  
DDDDDDGEDEDDDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD  
RDCAGDDLKVLQQFAACFLETLPQEEQTPKASKRERRDEQILAQLPLLHGNNVNGSKVIRREFQEHCRRLLSN  
HTGSPRTPTSTYLTPTPSEDAAPISKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSQEHLVPVCQWSYVT  
SVPSAPKEDSGSVPTGSPSQGTPISLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFGQADTEEEEEEGDCMIVD  
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

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**FIGURE 913**

[illegible]

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**FIGURE 914**

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA  
SENFCSRAALEALGSCLNKKYSEGYPGKRYYGGAEEVVDIEILLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV  
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT  
SAYARLIDYARMREVCDEVKAHLADMALHISGLVAAKVIPSPFKHADIVTTTTHTLGRARSGLIFYRKGVKAVD  
PKTGREIPYTFEDRINFVFPSPQGGPHNHAIAAVAVALKQACTPMPFREYSLQVLKNARAMADALLERGYSLVSG  
GTDNHLVLVDLRPKGLDGARAERVELVSI TANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVDFIDE  
GVNIGLEVKSKTAKLQDFKSFLLKDSETSQRLANLRQERVEQFARAFPMPGFDEH

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FIGURE 915

CTCGCCCGCTCCGGCGCAGCTCCGCCCTCCGTCAGTTGGCTCCGCTGTGCGGGTGCGCGCGGTGGAGCGGCAGCCGG  
TCTGGACGCGCGGCCCGGGGCTGGGGGCTGGGAGCGCGCGCGCAAGATCTCCCCGCGGAGAGCGGCCCTGCCA  
CCGGGCGAGGCGCTGCGCCGCGCATGCGCAGAGATGGGCAGTAAAGGGGTGACGGCGGGGAAAGATCGCCAGCAACGCTG  
CAGAAGAAGCTCACCCGCGCAGGAGAAAGGTTCTCCAGAAGCTGGGGAAGGCAGATGAGACCAAGGATGAGCAG  
TTTGAGCAGTGCCTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGGCTGCAGAAGGATCTCCGGACCTTAC  
CTGGCCCTCCGTCAAAGCCATGCACAGGGCTTCCAAGAAGCTGAATGAGTGTCTGCAGGAGGTGTATGAGCCCGAT  
TGGCCCGGCGAGGGATGAGGCAACAAGATCGCAGAGAACAACGACCTGCTGTGGATGGATTACCAACAGAAAGCTG  
GTGGACCAGGCGCTGCTGACCATGGACAGCTACCTGGGCCAGTTCCCCGACATCAAGTCACGCATTGCCAAGCGG  
GGGCGCAAGCTGGTGGACTACGACAGTGCCTGGCACCACTACGAGTCCCTTCAAACTGCCAAAAAGAAAGGATGAA  
GCCAAAATTGCCAAGGCCGAGGGAGAGCTCATCAAAGCCAGAAAGGTGTTTGAAGGAGATGAATGTGGATCTGCAG  
GAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACGTTCCAGAGCATCGCGGGCTGGAG  
GAAAACITTCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCCGCCCTGGAGAAGCAACAC  
GGGAGCAACACCTTCACGGTCAAGGCCAGGCCAGTGAACAACGCGCTGCAAAAAGGGAACAAGAGCCCTTCGCCT  
CCAGATGGCTCCCTGCGGCCACCCCGAGATCAGAGTCAACCACAGAGCCAGGCCGGCCGGCGGGGCCACGCC  
GGGGCCACCTCCCCAAGTCCCCATCTCAGCTCCGGAAGGCCACCAAGTCCCTCCGCCCTCCCAACACACCCCG  
TCCAAGGAAGTCAAGCAGGAGCAGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACC  
CCCTCCAGCCAGCAGAGGCGCTCGGAGGTGGCGGGTGGGACCAACCTCGCGCTGGAGCCCAGGAGCCAGGGGAG  
ACGGCGGCAAGTGAAGCAGCTCCAGCTCTCTTCTGCTGTCTGGTGGAGACTTCCAGCAACTGTGAATGGC  
ACCGTGGAGGGCGGCGAGTGGGGCCGGGCGCTTGACCTGCCCCAGGTTTTCATGTTCAAGGTACAGGCCACAGCAC  
GACTACACGGCCACTGACACAGCAGCTGACGCTCAAGGCTGGTGATGTGCTGGTGATCCCCITCCAGAAC  
CCTGAAGAGCAGGATGAAGGC TGGCTCATGGGCGTGAAGGAGAGCGACTGGAACAGCACAAAGGAGCTGGAGAAG  
TGCGGTGGCGTCTTCCCCAGAACTTCACTGAGAGGGTCCCATGACGCGGGGGCCAGGCAGCTCCGGGCGTGT  
GAAGAACACCTCTCCCGAAAAATGTGTGGTCTTTTTTTGTGTTTGTGTTTTCATCTTTTGAAGAGCAA  
AGGGAAATCAAGAGGAGACCCCGAGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTCCAAAGAGCCGCGTC  
CCGGCAAGTCCGGCGGAATTACCAAGTGTTCTGAAAGTGTCTGTGTCCTCTAGTTGAGTTTCTGGCGCCCTGCC  
TGTGCCCGCATGTGTGCTGGCGCAGGGCGGGGCTGGGGGCTGCCAGGCCACCATGCTTGCTGAAGCTTCGGC  
CGCGCCACCCGGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACACCAAGCTAGCTGGGT  
CTGCCCCGAGACGGTCTGTGTGCTGTTTGAATAAATCTTAGTGTTCAAAAACAAAATGAAACAAAAAATAAT  
GATAAAACCTTTCAG

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**FIGURE 916**

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGKADETKDEQFEQCVQNFNKQLTEGTRLQKDLRXYLASVKAM  
HEASKKLNECLQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVDY  
DSARHHYESLQTAKKKDEAKIAKEEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM  
SKLNQNLNDVLVGLEKQHGSNFTVKAQPSDNAPAKGNKSPSPPDGSPAATPEIRVNHPEPEPAGGATPGATLPKS  
PSQLRKGGPPVPPPKHTPSKEVKQEILSLFEDTFVPEISVTTSPQAEASEAVAGGTQPAAGAQEPGETAASEAA  
SSSLPAVVVETFPATVNGTVEGGSGAGRLDLPPGFMFKVQAQHDYATATDDELQLKAGDVVLVIPFQNFEEQDEG  
WLMGVKESDWNQHKELEKCRGVFPENFTERVP

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**FIGURE 917**

AAAGCAGAATTGAGAGTTTGTCTTACACACAAGTTTAATGCCACCTTCCTCTGTCTGCCATGSACCAACAAGCA  
ATATATGCTGAGTTAAACTTACCCACAGACTCAGGCCAGAAAGTTCTTCACCTTCATCTCTTCCTCGGGATGTC  
TGTCAGGGTTCACCTTGGCATCAATTTGCCCTGAAACTTAGCTGTGCTGGGATTATTCTCCTTGTCTTGGTTGTT  
ACTGGGTTGAGTGTTCAGTGACATCCTTAATACAGAAATCATCAATAGAAAAATGCAGTGTGGACATTCAACAG  
AGCAGGAATAAAACAACAGAGAGACCGGGTCTCTTAAACTGCCCAATATATTGGCAGCAACTCCGAGAGAAATGC  
TTGTTATTTTCTCACACTGTCAACCCCTTGAATAACAGCTAGCTGATTGTTCCACCAAAGAATCCAGCCTGCTG  
CTTATTCGAGATAAGGATGAATTGATACACACAGAACCTGATACGTGACAAAGCAATTCTGTTTGGATTGGA  
TTAAATTTTTCATTATCAGAAAAGAACTGGAAGTGGATAAACGGCTCTTTTTTAAATTCATAGACTTAGAAATT  
AGAGGTGATGCTAAAGAAAAACAGCTGTATTCCAICTCACAGACATCTGTGTATTCTGAGTACTGTAGTACAGAA  
ATCAGATGGATCTGCCAAAAAGAACTAACACCTGTGAGAAATAAAGTGTATCCTGACTCTTGA

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**FIGURE 918**

MDQQAIYAE LNLPD SGPESSSPSSLP RDVCQGS PWHQFALKL SCAGIILLVL VVTGLSVSVTSLIQKSSIEKCS  
VDIQSRNK TTERPGL NCPIYWQQLREKCLLF SHTVNPWN NSLADCSTKESSLL LIRDKDELIHTQN LIRDKAI  
LFWIGLNF SLSEKNWK WINGSFLNSNDLEIRGDAKEN SCISISQTSVYSEY CSTEIRWICQKELTFVRNKVYPD S

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**FIGURE 919**

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT  
GTGCAGACTCAGACTGGGCAAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCCACCAGAAGA  
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA  
CAGCCATGGGTTATTCACTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA  
GAATCAGAAGGTGAATTGATTCTCATAAACGTAGAGAAATCCTTTACGAAGACCCCTCTTATAGGAAAAATACTG  
AATGAACTGTCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCCACCT  
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCCAAGGT  
GGAACAATCCAGATTTCTAACCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAAACAATGACAAATTCAGGA  
GCTCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA  
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG  
CCACAGGGAGTGGTGATGGCTGCATCGCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC  
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGAGTGTGCGAGGAAGAAGAAGAATATGTCAAA  
TGCTTTGAAAATCGTGTGGCTGTGCTTGAAAAACAAAACAAGACTCTCATTGAGGAACCTCAAGGCCCTCAAAGAT  
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA  
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTTTG  
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT  
TGTCATAGCATGCAAAAAATGCTTTGTTTGCCCTTGTCTTCTGCTTTTTTCAGGGAAGCTGCCAAAGAATGTC  
GACGTGAAAGAAAGAATATGTAAAAATGCCTGGAGAGCCGAGTTGCAGTGTGGAAGTCCAGAACAAGAAGCTTA  
TAGAGGAACCTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAAGTGTAT  
TACAGA



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**FIGURE 920**

MAVTGDETDEETDLAPSHMAAATGDMPTYQIRAPTTALPOGVVMAASPGSLHSPQQLAEEATRKRELRMLKNREA  
AKECRRRKKEYVKCLESRVAVLEVQNKKLIELETLDKIDICSPKTD

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**FIGURE 921**

ATGGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTGTGGAAGGTGTAGGGAGTGAA  
GTCTCACATAGGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCAGTTAGCAGAATCAAGACCTACACCATC  
ACGGAAGGCTCCTTGAGAGCAGTAATTTTATTACCAAACGTGGCCTAAAAGTCTGTGCTGATCCACAAGCCACG  
TGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAATCCAACACCAGAAATAACATGATCCAGACCAAGCCAACA  
GGAACCCAGCAATCGACCAATACAGCTGTGACCCTGACTGGCTTAG

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**FIGURE 922**

MRLILALLGICSLTAYIVEGVGSEVSHRRTCVSLTTQRLPVSRIKTYTITEGSLRAVIFITKRLKVCADPQAT  
WVRDVVRSMDRKSNTNRNNMIQTKPTGTIQQSTNTAVTLTG

CACGTGGCTGCAGCGGGGCCAGAGCAGCAATGGCGGCGGGCGGCGGTAGCTGCGACCCCTGGCCCTGCTG  
GGGTCCCTTGCGCCTTCTCCCGCAGAGCCAGGCCCTACTTCGCTTTGGCCCTTACCAGCGGTCACTTACGAGTAT  
GGGAGAGCGGCCAACACCGCTGCACAGGAGTAGTGCCTTCCGCGCACCTCAGTGGTACCTGCACCTGTCTCGG  
CCTGGGCGCCAGCGCGGTGCAGGCCAAGGAAAGTCCCGAGAGGAAAAAGAAATCAGAACTGTAGGAATGA  
GTAACCAGACTGACTTATTGGCTCTTGGCCAGCAGTGTGGTAGCTTTTATTATACAGCACAGTAAAGGAGAGT  
TACACAGTAAATATAAGTGGGTGACATGACAACAGAGTCAACTGCATACAGTGGCATCAAGACAGTGGCTGTT  
TATATAGTTTCTCAGATGATAAAACATATTGTGAATGGAACGTACAGACATGCAAAAGTAAAGTGCAATGGAAG  
GGGACAATAGCAGTGTCTAGTTCCTATGTATCAGCCAGATGGAAGAGTGTGCTTTCAGCTGGTGCACAATCA  
AATATAGGTTTGGAGACCAAGGAAGTCTACAGGCATTTACAGGACATGCAACGCCAGTTTCGTCACTGATGT  
TCATACCATCAGACCTCTTATAGAGCCAGCCCTTTGATGGAATTACAGGCTTTATTCTTATCTGGAGCAG  
TACATGACCCGTTACTTAATGTCTGGCAGGTCCGATCAGAAAACAAAGAAAAGAGTGCAGTGTATGTCATTACAG  
TTACCGATGAACCTGTCTATATTGACTTAACTTTGTGCAAAAACAAAGAGAGCTGTCAAGTTGGCTGTTGTTT  
GCAGAGATGGTCAAGTCCATCTTTTGAACACATATTAAATGGGTACTGCAAAAAGCCTTTGACTTCAAATGCA  
CAATTCAGATAGCAACCTCGGAAAAGGCAAGAAGTCAACACCAAAACCCATCCCTATTCTAGCTGCTGTTT  
CCTCAGACAAAATGTCATTGTTGCTTGTATATGGCAGTTGGTTTCAGCCTACTATTGAGCGAGTTTAAACT  
GCAGAACTCATATGTGTTTATGATAAGATATTTAAACTGCTGGGCCCAAGTAGAAACAGCTATAACAA  
AGGTGAGGACACCAAGTGTATGTAATCTGAAGCAAAAGTTCTGGTGCTGGGATTCCTGGTCACTATGCAGCTATCA  
AGCCCCGCTCTCCACAAACAGCAGCAAGTAGAGAGCAAGGAAGTCAAGGGGAAATGAGTTAGCATGGAAGAAC  
GTCTGGGAGCAATGGATATAGACACACACAAAAAGGAAAGGAAGACCTCCAGACGAATAGCTTTCAGTTCTTC  
TACCCAGGGCTTAGAAAGTAAACGATTTGAAATGCTAAATAAGTACTTCAAATAGGAATGTAACCTTATAA  
AGAAGACTGTATTAAAGGATGCCCTGCATACTATTATCCGTTGTACAGAGCTTACAAGAGGTTACAAGGAC  
ATCCTAATAGTGTCTAGTAAATGGTTTCAGTGGCTAAATGTGTGTTAACAGTTCATGCATCATACCTGTCCACGT  
TGCTGACCTGGTACCCAGCTGGGGACACTCTACCAGTTAATGGAAGCAGAGTCAAACTTTTCAGAACTTT  
CACACCTTCATGGAAGCTTATCTCTTAATTACACAAGTACAGCATCAGAGAAGCAAAAGGAGCAACTTCCC  
CTGGACAGAAGGCAAGTTGGTGTATGAAGAAGAGTCTTCTGAAGAGGAGTCTGATGATGAATAGCAGATAAGG  
ATTCGAAGATAATTGGGATGAAGATGAGGAGGAGAGTGAAGTGAAGGAAGATGAGGAGCTTGAAGAGGAAGATG  
AGGATGCCGAAGGAAAAAGATGAAGAAAAATGGCGAGGACAGAGATACAGCAAGTGAAGAAAGAAATTAATGGAGATT  
CTGACTTAGATCCTGAAATGAAAGTGAAGAAGAAATGAAGACAGCAAAAGCCGCTCAAACCTATAAACTCT  
GGCTCACCTTGGCCAGTGGTGAGGGCTGCCCTCTGTGCCAGGATGCCAAGGACCGTCGACATTTCAAAATTCACA  
GCAGTGGATCCCATGCCACTTTGCTGTCTGAGCAGCCAGACTTGACTGTGTAATAGAGTGTTCATTCAA  
TGTTAATAAACTTTACACAGTATATAGACACATTTTCTGCAATGTACTGACATCAGTGTCCAATATATGGTATAT  
TTTTATAATAATAATCTCAGTAGTATGGTTATATCAAGAATTGACAAGTGACAGATAAGAGACCTTCCCATAGG  
AGTTCAAGAAGCTGACTGTTGTGAAGAAGTCAGCTCTTATCTCAGGTTGGTATCTTTCATCAAAATCCAGATGCAA  
AGCAGCACTAGTGAAAAATTTTTTAAATTTAGTACATTTAAATTTGGTACATTTTCAATAATGAAGGGATAACT  
ACGAAATCTCTTAAAGAAATGATGGTAATTAAAAAAATCTCAGTATCCCTAGCTGTCTTAACTGTGATATACT  
TGACTTGAGTCAGATTGAATATTGGAGTGCTTCCCCAGAATAACCACTTATTTTGAAGCTATCATGTGAAGTA  
TTTTTTTTTAAACAAAAAATAATATGGTCATTAATAAACTAGAGAATTAGCCATATTAAGGATTTTTCTTGACT  
GCAATACTCTTAAAGAACTCAGTGATAGATTAGAAGTGCTCATTACCTGCACTTTTAAAGAAATTCAG  
TTATAGCTGCTTTTGAAGAGGTTTCCATTTTTATTAAATTAATAATGAATCAAAGACAATGTTTATTTTTTCT  
TCTTTGGTTTATAGATTTAATGATAACCTTGTGGAATTTTTTCCAAAGAAATAATTTTTATAATTAATAAT  
TAAATGTTTTTCTCTTTTCACTTACCTACTCTTGGCAGTGTAGGATGCTCATTACCTGCACTTTTAAAGAAATTCAG  
TCACCTAAGATTTTTTATCTATGTATAAATATTGTTGTGCTACAAAAGCCTTTACAATTTTACAGTAGTAGTT  
TTTTTTTTTTTTTTTTTAAAGAATGAGCCGATATTGGCTAGTGCTACTAGGGGACATGCATGTGAAGC  
TCACCTCTAAGAAAGGCTGGGCAGATGTTTATTTTTCCCACTGTGAAATGTGTAACAAAACCAATTATCT  
TTGAGGAGTTTATTAACCAATGACAGAACAGAGATTGTGTGCTCATCTTAAGAGCCAGAGCCATATAAGCAT  
CTTGGGAAGCAAGTTTGAACAGCTGCTGGTGTAAATGACAGTATATTGTCTATAAATGAGAGCTGTATTGAG  
CAATTTAATACCATCTCTTTGTAAAGTGAATAAATATTCACTTTTCCC

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**FIGURE 924**

RGCSGARAAMAAGGGGSCDPLAPAGVPCAFSPHSQAYFALASTDGHLRVWETANNRLHQEYVPSAHLSGTCTCLA  
WAPARLOAKESPQRKKRKSEAVGMSNQTDLLALGTAVGSILLYSTVKGELHCLKISGGHDNRVNCIQWHQDSGCL  
YSCSDDKHIVEWNVQTCVKCKWKGDNSSVSLCISPDGKMLLSAGRTIKLWVLETKEVYRHFTGHATPVSSLMF  
TTIRPPNESQPFDDGITGLYFLSGAVHDLRLNVWQVRSENKEKSAVMSFTVTDEPVYIDLTLSENKEEPVKLAVVC  
RDGQVHLFEHILNGYCKKPLTSNCTIQIATPGKGKKSTPKPIPIAAGFCSDKMSLLLVYGSWFQPTIERVALNS  
REPHMCLVRDISNCWAPKVETAITKVRTPVMNSEAKVLVPGIPGHAAIKPAPPQTEQVESKRKSGGNEVSIER  
LGAMDIDTHKKGKEDLQNSFPVLLTQGLSNDFEMLNKVLQTRNVNLIKKTIVLRMPLHTIIPLLQELTKRLQGH  
PNSAVLMVQWLKCVLTVHASYLSTLPDLVPQLGTLYQLMESRVKTFQKLSHLHGKLILLITQVTASEKTGATSP  
GQKAKLVYEEESSEESDDEIADKDSEDNWEDEEESESEKDEDEVEEDEDDEAGKDEENGEDRDTASEKELNGDS  
DLDPENESEEE

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**FIGURE 925**

GCCACTTGCAGTGATGTTTTGTTCTTCCCTAGCTCCTGCAGATACCTAAAGATAGTCCATAATCTTTTGGGTCT  
CACTTCTGCAAAITGGAGTTCATACTTGCCTATCTTTTGTGAAGAACCTCAAGATAGTTCAAAAAGTATTT  
TGAAAAGTATAAAGTGATGGGTTTAATGTAATGTTTTATTCAATACTACTATCCTCTAGACTAATTGGTTGTA  
GTTACATTACAGTAGCTGCTTCGTAAGTGATTTTG

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**FIGURE 926**

ATCSDVLFFPSSCRYLKIVHNLFGSHFCKLEFILALSFVEEPSR

**FIGURE 927**

GAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAGACGAGAC  
TCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATATAAAATGCTCTCAGAGCAACC  
GGGAGCTGGTGGTTGACTTTCTCTCCTACAAGCTTTCCAGAAAAGGATACAGCTGGAGTCAGTTTAGTGATGTGG  
AAGAGAACAGGACTGAGGCCCCAGAAGGGAATCGGAGATGGAGACCCCACTGCCATCAATGGCAACCCAT  
CCTGGCACCTGGCAGACAGCCCCGCGTGAATGGAGCCACTGCGCACAGCAGCAGTTTGGATGCCCGGGAGGTGA  
TCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAACCTGCGGTACCGCGCGGCATTCA  
GTGACCTGACATCCAGCTCCACATCACCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAATGAACCTCT  
TCCGGGATGGGGTAAACTGGGGTCGATTGTGGCCTTTTTCTCCTTCGGCGGGGCAGTGTGCGTGGAAGCGTAG  
ACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTAGAGCCTT  
GGATCCAGGAGAACGGCGGCTGGGATACTTTTGTGGAACCTATGGGAACAATGCAGCAGCCGAGAGCCGAAAGG  
GCCAGGAACGCTTCAACCGCTGGTTCTTGACGGGATGACTGTG6CCGGCGTGGTTCGTCTGGGCTCAGTCTTCA  
GTCGGAATGACCAGACACTGACCATCCACTTACCCCTCCACCCCTTCTCTGCTCCACCACATCCTCCGTCCA  
GCCGCCATTGCCACCAGGAGAACCCG



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**FIGURE 928**

MSQSNRELVDVFLSYKLSQKGYWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATAHSSSL  
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL  
CVESVDKEMQVLVSRIAAMATYLNHLEPWIQENGWDTFVELYGNNAAE SRKGQERFNRWFLTGMTVAGVVL  
LGSLFSRK

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**FIGURE 929**

CGCCTCTTCACGGCACTGGGATCCGCATCTGCCTGGGATCATCAAGCCCTAGAAGCTGGGTTTCTTTAAATTAGG  
GCTGCCGTTTTCTGTTTTCTCCCTGGGCTGCGGAAAGCCAGAAGATTTTATCTAGCTTATACAAGGCTGCTGGTGT  
TCCCTCTTTTTTCCACGAGGGTGTTTTTGGCTGCAATTGCTATGAAATCCCAATGGTGTAGACCAGTGGCGATGG  
ATCTAGGAGTTTACCACTGAGACATTTTTCAATTTCTTTCTGTCTATCCTTGTGGGACTGAAAACGCTTCTG  
TGAGACTTGATAATAGTCCCTCTGGTGCAAGTGTGGTAGCTATTGACAACAAAAATCGAGCAAGCTATGGATCTAG  
TGAAAAGCCATTTGATGTATGCGGTGAGAGAAGAAGTGGAGGTCCTCAAAGAGCAAAATCAAAGAACTAATAGAGA  
AAAAATCCCAGCTGGAGCAGGAGAACAATCTGCTGAAGACACTGGCCAGTCTGAGCAGCTTGCCAGTTTCAGG  
CCCAGCTGCAGACTGGCTCCCCCCTGCCACCACCCAGCCACAGGGCACCACACAGCCCCCGCCAGCCAGCAT  
CGCAGGGCTCAGGACCAACCGCATAGCTGCCTATGCCCCGCGAGAAGTGGCTGCTGCGTGTGAAGTGAACAGACG  
GAGAAGATGTGCTAGGGAGAATCTGCCTCCACAGTCAACCATTTTCATTGCTGCGTGCAGAAAGAGACGTGAGACTG  
ACATATGCCATTATCTCTTTTCCAGTATTAACACTCATATGCTTATGGCTTGGAGAAATTTCTTAGTTGGGTGA  
ATTAAGGTTAATCCGAGAATTAGCATGGATATACCGGGACCTCATGCAGCTTGGCAGATATCTGAGAAATGGTT  
TAATTCATGCTCAGGAGCTGTGTGCTTTCCATCCCTTCGGCTCCCTACCCCTCACTTCCAAGGGTTCTCTCTC  
CTGCTTGCCTTAGTGTCTACATGGGGTTGTGAAGCGATGGAGCTCCTCACTGGACTCGCCTCTCTCTCTCTCT  
CCCCCAGGAGGAACCTGAAAGGAGGGTAAAAAGACTAAAATGAGGGGAACAGAGTTCAGTGTACAAATTTGAC  
AACTGTCAACAAAATTCATAAAAAACAATAGTACTGTGCCTCTTTCTTCTCAAAACATGGATGACACAAAACAT  
GAGAGTGACAAAATGGTGACAGGTAGCTGGGACCTAGGCTATCTTACCATGAAGGTTGTTTTGCTTATTGTATAT  
TTGTGTATGTAGTGAACATATTTGTACAAATAGAGGACTGTAACACTATTTAGGTTGTACAGATTGAAATTTAG  
TTGTTTCATTGGCTGTCTGAGGAGGTGTGGACTTTTATATATAGATCTACATAAAAACTGCTACATGACAAAAAC  
CACACCTAAACCCCTTTTAAAGAAATTTGGCAGAGTTACTCACTTTGTGTAATCTGAAATCTAGCTGCTGAATACG  
TGAAGTAAATCCTTGTCTCACTGAAGTCTTTCAATTGAGCTGGTGAATACTTTGAAAAATGCTCAGTTCCTAACTA  
ATGAAATGATTTCCAGTAGGGGTTTCTGCATATCACCTGTATAGTAGTTATATGCATATGTTTCTGTGCATGT  
TCTCTACAAATGTGAAGGTGTCAGTGATTTAACTGTTGCATTTGCACTTTCAATAAAGCATATAAAATGTTG

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**FIGURE 930**

MKSQWCRPVAMDLGVYQLRHFSISFLSSLLGTENASVRLDNSSSGASVVAIDNKIEQAMD LVKSHLMYAVREEVE  
VLKEQIKELIEKNSQLEQENNLLKTLASPEQLAQFQAQLQTGSPPATTQPQGTTPPAQPASQSGGPTA

[illegible]

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**FIGURE 932**

RGRENHAEAGAEDLRPAPGQLNEDKLGKLRSLNQLYTCTQKYS PWGMKKV LLEMEDQKNSYEQKAKESLQKVL  
EEKMNAEQQLQSTQVWGCHIDMGLGTPGSLGNKGSQLHNSLEPSPL

## FIGURE 933

GTTGGAATAACTATACTTTAAAGCAAATCTAACCCAGTAAGCTATCAAAAAGAAAAATTATATAATTACCAAGT  
AGAGTTAATTTACCTGAGTTCTATGAACATATTCATTATTAAAGGAAACCTCAAATTTATTGTCCTTGGGAAGC  
AAAAATATACATTTATAAATAGCCATTTCTCGTTTTAAAAAACTAATAACATTGAAATAAACAGAAACTTAAGCTC  
TTCTAGTTTGCCAAAAACCAGAAAGCAAACATCATATACTAAATGATGAAATGCCAAGCCATTTCCATTATATC  
AGAAACGAGACTAATACTTCCTGTCATCTTTACATGATTGTCACTATTATTAAAGCATTGTTTTGGTAGTCTTAG  
CCATTGCAGTAAGACAGTAGACAGAAAGTCAAATAATTGGCATAAATATTGGAACAAAAAATTATTTCTACTTT  
GAAATGATACAATAAGAATAGCTGGAAGCCCAGGGGGACTCTAGTAGAAAAACAGCAATGAGGATTAATGTAAGA  
CACTTTGGAAGCTGATGTGTGAGAAATGTACACAACTAATAGCTTTCTCTTTATTAGTAGTCATCAGTTGAAA  
ATGGAAATGACCAAGCAAAAATATTCAACAGAATGACAAAACCTATTGGTTACACCTAGGAATAAATGTGTTAAAG  
AAAGGTACAGAGTGAAGGTAATGACCCTTATGAAGAAAACTTGATATTATAAAAAGTAGTCCTTTTCCCTCAG  
TTTTTGCTTCAAAATGTTTACTTGGGACAGATCGTGGTTTACATGATGGTCCTCAAACATATTGTGAACAACAT  
TAAAAAAGACACATTTTACTCAATAAGTAACATTTTTGAGAAGCTACTATGTGCTAGGGACCTAGTTTTT  
AGTGCAGTGGTCTCCAAATAATGTACTGGCAGTATGGGAAGACCGTTTGAACACTGTACCTTTTTATTGGGA  
GGAGAAAAGAACCTTTGTCAAATATTTAACACCTGTGTCAGAGGTCTGTAGATTGTGATGATTGTGTGCCATGA  
GTTACACACAGACTCCTAAATCAGTTTCACCTGTGGTGTCTCTATTCTGTTTACTTTGAGCATTTTGCATTCTAT  
ATCTGCTTAGTTATATGGATTTATTCTGTCCTATATAATATGTGTAGCCACATGGACACATGTTTTAAAGGTTTT  
AAATTCTGCAAGATAGTGACGATGATGTAACACACAAGAAAAGGGCAATGGATACATTTTCTACTCTGTGCTCA  
TCAACATATTACAGGATAAAATATTGGCTATCTAATAAAAAACACAGACTAATAAGACCTGATAAGTTGGACAA  
AATGTTTTAAAAATTAACATGAAGATGATAGGAAGTATGAATCTATATTCACTGTCATTATATGCAACCTTTACC  
TTATGGTATATTGTACTTTGAGAAATTA

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**FIGURE 934**

MSNLYLMVYCTLRN

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FIGURE 935A

AAAAATTGCGTTTGTAGTTTGCCGCGAGCCGGGCCAATCGGTTTTTGCCAACGCATGCCACGTGCTGGCGAACAAAT  
GTAAACACGAGGATCGTGTGCGGGCACTTGGTTTTCTGGTGGGGCAACTGTGCTGCTGTTTTCTTTGGCCGCGGA  
CAAGGTGCGGCAGAGTTGGACCCCTGCTTGGGAGAGCTCTTCTCGTGTGCTGACACCCGCCCTTAACAGTCACCC  
ACCCCGGGGAAATTAATGGGGCTCGGAGGCCCTCTCCAGCCAGTGTCCACGACTAGACGACTCGGCTCCCGCAGCT  
CAGAAAGGTCCTCCGAGGCCGAGTCACCAATTTCCGGCTCAGACCTCGACCCGGAACGTGGCTGCCACTGCCACGC  
CCACTCAGCCCGCAAGTGGCTGCCCCAGGGGACGAGGGGCAAGAAGCGGCCCTCCGAGGCGACGGCCGCAAGGCCAT  
TCGGTCCCTGGCTCTTCCAGCTCGCAGAGACCCGGAAGCGCTGCCCGGCCCTTGCCCTCTTCAGATCCCCCA  
GCACCGGAGGAGCAGCGAGGGGGCTGCGTCCAGGCCGGCTTCGGGTGCGGCTTAGCGGAATCCAGCTCTCTTTTG  
CCCCCTCCAGAAAGGCCAGCCCGTCCGGCGGTGTTCCGGCGCGCCGGGGCGGGCCCCCGCCGCCCCAGGGT  
CGCTCATAGGCCCGGAAACACACAGCCGCCAGACTTGGCTGGCGCCGAGCCGGGGTGGAGCCAGCGGGTTCC  
CGCCAAATTCGCGTAGCTGGTCTTCCCCCGGGGCTACGTCGCGCCCTCTTTTTTTTTCAAACCCGGAGCTGC  
ACTGGGATTGGTGGACTGGGCACCTACGTGGTTAACGGTCGCGGGAAGCCCGGAGCCCGAACCTGAGACTGGAC  
CTGAGGAGACCTCAGCCTCGTGCTCGGGCCGCCCGCCTCTGCGGAAAGTCCGCCGCCGCTGCCGCCACCG  
TCCGACGCCCGAGCGCCCGGAGCCCGAGCCGCCGCCGCCGCGCAGAGACGCCCGGCTGCGACTAGGCGCGCCAG  
CCGACAGTGGCGGACCCGCCCCAGCCCGCCAGTGTCTGGACCCCGGACCTCCGCTCTCTGTCTCGCCG  
CGTCCCCAGGGCCCGCGCATTGCTGAGCCGACAGACGCCGCCACCCGCCGCCGCCGGGGCGGCTGCAC  
CTTGGCGCAGAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAGAGGAGGAGGAGGAGGCGA  
CGGCCACAGCAGCCGGGAGACTCGGCCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGCGGAGCCCCACGA  
GCCCGGGCCCGAGCGCCCGCTCGCCCGGGCCGCCCGCGGAGCCCGCGGAGCTGGAGGAGGACCTGTTGCT  
GCCCGGCCCTGCCCGGGCGGACGAGCGCGCGGTGGGCGGAGGGCGACTCGTGGGAGGAGAGGGCTTCGCG  
CTCCTCGTGGCGGTCAAGTCGCCGCCGCCGCCCTACTTCTGGGTAGCTCTTCTCGCGGCTGCGCTGCGCGG  
CCCAGGAGATGCGTGGCGGGGTTGGGGGCGCGCGGGCGGGCGAAGGCCCGCTCGCCGCGGCCGACCA  
CCCGGGACCCCGCCACACAGACTTCCGCAAGCTCGACTCTTCGACACCCCGCACCGCCACAGAGTTTGGT  
CTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGTAGTTCTCTCTCATGATACAGAAAATC  
AGGAAAAGGGGAATTGATGTGCGACAGACTCTCAAGTGAATATTAATCCTTTTACTCCGGATTCTTTGTGTCT  
TCATTCTCAGACAGTGTGCTCGTAGAAAGAGAACGATTGGAATGATTCTGTGGTGAAGACATGGAAGCCAG  
TGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAAATTACAATTACTGAAAGCAATATGAAGTCCCGGTA  
TACAACAGAATTTTCATGAGCTAGAGAAAATCGGCTCTGGAGAAATTGGTTCTGTATTTAAGTGTGTGAAGAGGCT  
GGATGGATGCATTTATGCCATTAAAGCATCAAAAAGCCATTGGCGGGCTCTGTTGATGACGACAACGCTTTGAG  
AGAAGTATATGCTCATGCGTGTGGACAGCAATTCATGTAGTTCGATATTTCTCTGCGTGGGCGAGAAGATGA  
TCATATGCTTTATACAGAATGAATATGTAAATGGTGGAAGTTTACGTGATGCTATAAGTGAAAATACAGAATCAT  
GAGTTACTTTTAAAGAACAGAGATTGAAGGATCTCCTTTTGCAAGTTGGCGAGGCTTGGAGGTATTTACATTCAT  
GCTTTGGTTCACATGGATATAAAACCTAGTAAATTTTCATATCTCGAACCTCAATCCCAATGCTGCCTCTGA  
AGAAGGAGACGAGATGATGGGCATCCAACAAGTTATGTTTAAATAGGTGATCTTGGGCATGTAACAAGGAT  
CTCCAGTCCACAAGTTGAAGAGGCGATAGTCTGTTTTCTGCAAAATGAAGTTTACAGGAGAATTTATACCATCT  
ACCAAAAGCAGATATTTTTGCGCTTGCCCTCAGTGTGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAAATGG  
AGATCAATGGCATGAAATCAGACAGGAGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAAATTACAGAGTT  
GCTAAAAGTTATGATTCTATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCATGCTTGAAGCATTCAGTATGCT  
GTCGCTCTCTAGAAAGAGTGCAGAACAAATACGAATAGAATTGAATGCCGAAAGGTTCAAAAATTCACCTTTTACA  
AAAAGRACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAGAGCACTCTTCACTGACCCGATGGCCAC  
TAGGTCACCCACCCAGAGTAATGAACAATCTCGACTTATTGGAAGAAAATGAACCGCTCTGTCAGCCTTACTAT  
ATACCTGAGCTACTCTCTTCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGATAGAA  
TCCAGTTTGAATTAATTTCTCGATTGGTGTGAGTAGTTTACTGATTAGGACTTTTATGTGAATTACAGTTGA  
AAGCTGATTATTTGATGATTGCTGTCAGGCTTTTCATCAATCTTACCACTGCTTCTGCTGAGGATGTGTCAC  
GTTGGATGTTACACAGGCTTTCCAGGGTTAACCCTGTGGTGGTGTGCTGCTTATAGTTTGGCTGTTGCTTATGTA  
ATAAAAGGTGCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGCTTTATACAGACATACCTCCCTTTGA  
AAAGGGACATGCTAAAAGACTCACTACTACGCTTCAATGTACCTGTGTGTCATCTTATATTTCTTTTTTT  
TTTTTAATGTGAATTAGACTTGATATCCCACTGGGAGCACTTGTAGGCATTCGATGAACCATGGGATGATGA



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**FIGURE 935B**

TTCTGTGGAGGTATTGCCTTGTGAATTGCTGCTATTTAGTTTTGTCTTTGCTGTAACTTGTAGCATTAAACA  
ATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGAAAAGCAGCTA  
TTTGCCTTTTTTTTTTCCTTTGAACCTTTGAAGCTAGTGCATTGGAAAAATGCACCCCTTCCCTCCTTTGGAAT  
GCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACTTGTTCTGGTAATGTCCTTCCCGGACTCTTTTTAAA  
TGCTCCCCCTAAGTTTTATACTTGATTGATTATTAGTCTGTTTTAAATGTTTTGCCCGGTTTTTCTCTTCAA  
TATTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAATGCCAGAATGACTTCTGACATTCC  
AAGTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTGACTAATAATACTGGCTAACAGATGTTGAAAAAA  
ATTGTCTGTTGTTCATTAATTTGGTCTAAAACATGTTGCACTTGCTTTGACTTGTGTTTTATTAACA  
TTGATTGGCATATTAAGTCACCTGAGCTT

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**FIGURE 936**

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPARSPTEPGPER  
RRSPGPAPGSPGELEEDLLLPACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSVRCGGPGDAS  
PRGCGARRAGEGRRSPRPDHPGTPPHKTFRKLRFLDTPHTPKSLLSKARGIDSSSVKLRGSSSLFMDTEKSGKREF  
DVRQTPQVNINPFTPDSELLHSSGQCRRRKRTYWNDSCEGDEASDYELEDETRPAKRITITESNMKSRYTTEFH  
ELEKIGSGEFGSVFKCVKRLDGCYAIKRSKKPLAGSVDEQNALREVYAHAVLGQSHVVRVYFSAWAEDDHMLIQ  
NEYCNGGLADAI SENYRIMSYFKEAELDLLQVGRGLRYIHMSMLVHMDIKPSNIFISRTSIPNAASEEGDED  
DWASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTIVCAAGAEPLPRNGDQWHE  
IRQGRLPRIPQVLSQEFTELLKVMIHDPERRPSAMALVKHVSLLSASRKSAEQLRIELNAEFKNSLLQKELKK  
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKKMNRVSLSLTIIY

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FIGURE 937A

GAATTCGGCACGAGGTACCCGGATAGGTAAGGAAAACATGCTGCCACACGGAAGCCAATGAGATATGGGCAT  
ACAGAGGGACACACGAGAGTCTGTTTTGATGATTCTGGAGTTTTATTGTGACTTGTGGGAAGTATGGTGATGTG  
AGGATTTGGGAAGACTTGGATGATGATGATGATCCTAAGTTCATTAAATGTTGGGAGAAAAGGCATATTCTATGTCCTTTG  
AAGAGTGGAAAACTGGTCACTGCAGTCTTCTAATAACTATTCAAGTCCACACATTTCTCTGAAGGAGTTCCAGAT  
GGATATTGACTCGCTTCACTACAAATGCAAAACCATGTGGTCTTTAATGGGGATGGTACTAAAAATGCTGCTGGA  
TCTAGTGATTTTCTAGTCAAAATGTTGGATGTGATGGATAGCAGCCACAGAAAACATTTTCAGGACCATGATGCC  
CTGTTTTAAGTCTTTCTTGTCTTCTTAAGGACACTCTTTCTGGCATCAGCTAGTTGTGATGCTGTGCAGATG  
TGGCAAAATTCAGATCAGACATGTGCTATTAGTTGGCCACTGCTACAAAAATGCAACGATGTGATAAATGCCAAAA  
TCAATCTGCAGACTTGCTTGGCAGCCAAAAAGTGGGAAGTTACTGGCAATTCCTGTGGAAAAATCTGTTAAGCTA  
TATAGAAGAGAATCTTGGAGTCATCAATTTGATCTTTCAGATAATTTTCATCTCTCAGACCCCTCAATATAGTAACC  
TGGTCTCCCTGTGGGCAATATTAGCTGCAGGTAGTATTAAATGGTCTAATCATAGTTTGGAAATGTGGAAACCAAA  
GACTGCATGGAAAGGGTGAACATGAGAAAGGTTATGCAATTTGTGGTCTGGCATGGCATCCTACTTGTGGTCGA  
ATATCGTATACTGATGCGGAAGGAAATCTAGGGCTCTAGAGAAATGTTGTGACCCCAAGTGGAAAGACATCAAGC  
AGTAAGGTATCTAGCAGAGTGGAAAAAGGATTATAATGATCTTTTGTAGGAGATGATATAGTAATGCTGGTGTAT  
TTCTAAATGACAAATGCAGTTGGATGCCCTTCTTTTTCAAAGGGGATTATAAATGATGATGAGGATGATGAAGAC  
CTCATGTGCTTTCAGGCTCTGCTAGACAGCGAAGTCACATCTTGAAGACTGATGAAAACTCAGTTGATATTCTA  
ATGCTAAAACTGGTCTTAGTCTTCTCAAAGAGGAGGAGGAAGATGGTCAAGAAAGGCAGCAATTCACAACTTACCA  
CTTGTAACTCCCAAAGGCCATTTTATGATGGACCCATGCCAACTCCCGGCAAAAGCCATTTTCAGTCAGTTCT  
ACACCGTTGCACTTCACTACAGATTCATGGTGTGGAACTCTATTGGAATTTATCGCTGCTATAATGATGAGCAA  
GACAATGCCATAGATGTGGAGTTCCATGATACCTCCATACACCATGCAACACACTTATCAAACTTTGAATTAT  
ACAAATGCAGATCTTTCCACGAGAGCTATTTTGTGGCATGTGAAAGCACTGATGAACCTAGCAAGCAAGCTTCAC  
TGCTGCACTTTAGTTCTTGGGATTCAGCAAGAGTGGATAATAGACTTGCTCAGAATGAGGATATTGAAGCC  
ATATGCTCTCGGTCAAGGATGGGCTGCGCGCTACTAGTGCCTGCTTCTCGATTGTTTACTATTGGAGGGGTT  
CAAAAAGAGGTATTACGCTTCTGCGCTGCGGTGTCATAGTGGCAGGACATGGAGAACAGCTTTTCAATGTTTAT  
CACAGAGGTACAGGATTGTAGTGGGATCAGTGCCTTGGAGTTCAACTGCTAGAGCTGGGAAAAAGAAAAACAA  
ATTTTGCATGGTGACCCCTCTCCTCTTACAAGGAAATCCTACCTTGCATGGATTGGGTTTTCAGCTGAAGGTACC  
CCTGTTTACGTGGATTGAGAAGGAATGTTTCAATGCTTAACAGAGGACTTGGTAATACGTGGACCTCTTATATGT  
AATACAAGAGAGCACTGCAAGGAAAAATCTGATCACTACTGGGTGGTGGTATCCATGAAAATCCCCAGCAACTA  
AGGTGCTATCTTGTAAAGGTTCTCGGTTTCCCCAACCCCTCCACGCGCTGCTGTGCTATATTATCTTTAAG  
CTTCTCTACTGTCCAGATTGCAACAGGAAAGGACAAATGGAGGAGCAATTTTGGCGTTTCAATATATTTCACAA  
CACCTTGATTATTAGCTAAAAATGGTTATGAATATGAAGAGCACTAAAAATCAAGCAACAAAAGAGCAACAG  
GAACTTTTAATGAAAATGCTTGGCTCTTCTTGTAAAGTGGAGCGAGAATTCGGTTGTGGAACTTGTGATCTA  
ATGACTCAAAATGCTGTGAATTTAGCCATTAATATGCTTCTCGCTCTCGGAAATTAATACTGGCTCAAAACTA  
AGTGAACCTGGCTGTAGAGAAGGCGGCAATTCAGACAGACCCAGGTGGAAGAGGAAGAAGAAGAAGATTTC  
AGAAAAGAGCTGAATGCTGGTTTACAGCAATACTGCTACAGAGTGGAGCCAACCAAGTTCAAGATTGAA  
GAAGATGCTGAGGACAGTGGAGAAGCTGATGATGAAGAAAAACCAGAAATACATAAGCCTGGACAGAACTCGTTT  
TCCAAAAGTACAAATCTCTCTGATGTTTCAGCTAAGTCAGGTGCAGTTACCTTTAGCAGCCAGGACGAGTAAAT  
CCCTTTAAGGTATCAGCCAGTTTCAAAGAACCGCCATGTTCAATGAATTCAGCAGCTTCAACTAATATTTTAGAC  
AATATGGGCAAAATCATCAAGAAATCCACTGCACTTAGTCAAGTACAAATATGAAAAGTCTCCCATTAATAAG  
CCTCTGATTTCCAAAGCCGAAGCCTAAGCAGGCATCTGCAGCATCTTATTTCCAGAAAAGAAATCTCAAACTAAT  
AAAACTGAGGAAGTGAAGAGAGAAAAATCTTAAAAATGTAATTTATCTGAACCCCAAGTATATGCTCTCTCAAAC  
ACTGAAACCAAAGGCCAAAAGACCGGGTCCAGATGTGGTTAGAAGAAAATAGAAGTAATATTGTTGCTGCAACT  
CCTGACTTTTCAGATGAAGCAGACATAATAAAGGAAGGAATGATTCGATTTAGACTATTGCTCAAGTGAAGAA  
AAGGTGTGGGCTAACAAAGCCAAAGGAGAAACGGCAAGTGAAGGAACGAAGCAAGGAAGCAAGCGTGTGGTT  
GATGAAGGTGATGAAACAGAAACCTCAGGAAGAAAAGCAAAAGAGAACCTGAAATTTGCTTAAAAGCAGCAAACT  
TTAGATTTTCTACAACTAGAAACTCATGCTTTTGCAATTAAGCAGGAGTAAAGGAAGAAAGTACCTTACCTAGGG  
AGTAATGGATTTTTTTTACTCATCTTTGAATATAGACTCGAGTCTTTGGGAACTCATTATATATATATTTTT  
AAAGAGTTTGAAGCAACTGTTTGTCTTTAAGATAATGTAGTAATATATTGGTGTAGGTAAACAGGACATATGT

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**FIGURE 937B**

AAAAACTATCATCTTTGCAGATTACTCTGCCCTCCAAATGCAGGGCCTTTCAGAGATGCATTGTGATTGTAATTAC  
TGAGTTGAAGCTCCAACCAATTTGAATTTGTTTCTTAACCTTGAAAAATCATTAAAGCCAAGGTATTTAAACCTT  
TGTGCATTAAACCTTCTAGGGGTTTGGTTCATTTGGTTTTTGTCAATGTGCAAGGAAGGACAATAGTCCTCTTTC  
CAAGTGTGTTAGCATAGACTTCTCTATATGTTTCTACTAGACCTAGGGGATGACGTCITTTAATAATACTGGCCC  
TAAACATGTAAATAATCTTGTAGGTGAGACTTTTTCTTTTGTGTTTCGGAAATTTCTATGTGGCTTTCAGTTGT  
CTGTTTGATAGCCTGGATTTTTTTGAGGTAAATGAACTTTCATTTGTAAAAAAAAAAAAAAAAAACTCGAG

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**FIGURE 938**

MPATRKPMRYGHTEGHTEVCFDDSGSFIVTCGSDGDVRIWEDLDDDDPKFINVGEKAYSCALKSGKLVAVSNNT  
IQVHTFPEGVPDGIILTRFTTNANHVVFNNGDGTIAAGSSDFLVKIVDVMSSQKQKTRGHADAPVLSLSFDPKIDF  
LASASCDGSVRVWQISDQTCAISWPLLQKCNVDVINAKSICRLAWQPKSGKLLAIPVEKSVKLYRRESWSHQFDLS  
DNFISQTLNIVTWSPCGQYLAAGSINGLIIVWNVETKDCMERVKHEKGYAICGLAWHPTCGRISYDAEAGNLGLL  
ENVCDPGSKTSSSKVSSRVEKDYNDLFDGDDMSNAGDFLNDNAVEIPFSKGIINDDEDDEDLMMASGRPRQRSH  
ILEDDENSVDISMLKTGSSLLKEEEEDGOEGSIHNLPLVTSQRPFYDGGMPPTPRQKPFQSGSTPLHLTHRFMVVN  
SIGIRCYNDEQDNAIDVEFHDTSIHHATHLSNTLNYTIAADLSHEAILLACESTDELASKLHCLHFSWDSKKEW  
IIDLPQNEIDIEAICLGQGAAAAATSALLRLFTIGGVQKEVFSLAGPVVSMAGHGEQLFIVYHRGTGFDGQCLG  
VQLLELGKKKKQILHGDPLPLTRKSYLAWIGFSAEGTPCYVDSEGIVRMLNRLGNTWTPICNTRHCKGKSDHY  
WVVGIIHENPQQLRCIPCKGSRFPPTLPRPAVAILSFKLPYCQIATEKGQMEQFWRSVIFHNHLDYLAKNGYEYE  
ESTKNQATKEQQELLMKMLALSCKLEREFRCVELADLMTQNAVNLAIKYASRSRKLILAQKLSLAVEKAAELTA  
TQVEEEEEEDFRKKLNAGYSNTATEWSQPRFRNQVEEDAEDSGEADDEEKPEIHKPGQNSFSKSTNSSDVSAKS  
GAVTFSSQGRVNPFKVSASSKEPAMSMNSARSTNILDNMGKSKKSTALSRTTNNEKSPIIKPLIPKPKPKQASA  
ASYFYQRNSQTNKTEEVKEENLKNVLSETPAICPPQNTENQRPKTGQMWLEENRSNILSDNPDFSDEADIIKEG  
MIRFRVLSTEERKVWANKAKGETASEGTEAKKRKRVDSEDETENQEEKAKENLNLSSKKQKPLDFS TNQKLSAFA  
FKQE

[illegible]

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**FIGURE 940**

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME  
DLASFDEDLADYLYKQPAEHLQLEEAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPPSIRSLSKSDMMSHLVK  
IPGIIIAASAVRAKATRISIQCRSCNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDCKCKCVDFQ  
TLKLQELPDVPHGEMPRHMQLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ  
VDTDGSGRSFAGAVSPQEEEFRRRLAALPNVYEVISKSIAPSFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI  
NLLMLGDPGTAKSQLKFVEKCSPIGVYTSKGSSAAGLTASVMRDPSSRNFIEMEGGAMVLADGGVVCIDFEDKM  
REDDRVAIHEAMEQQTISIAGAGITTTLNSRCSVLAANSVFGRWDETKGEDNIDFMPITILSRFDMFIVKDEHN  
EERDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRSGARQHERDS  
DRRSSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTSLSGVEGFTSQEDQEMLSRI  
EKQLKRRFAIGSQVSEHSI IKDFTKQKYPEHA IHKVLQLMLRRGEIQHRMQRKVLYRLK

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**FIGURE 941**

GAATTCGGGCGTGGGCGCGGGGGCGGCGTGCGGCAGCTGCAGGGCTGAAGCGGCGGCGGGTGGGACTGC  
ACGTAGCCCGCGCTCGGCATGGGCTCTCCTGGTGCTCGGTCTGGTGAGCTGTACCTTCTTTCTGGCAGTGAATGG  
TCTGTATTCTCTAGTGTATGTGATCGAATTAACCTCCATCAAATTTCAACCGAGAAGTTATTCAGAGTGATAG  
TTTGTGGCTGTAGAAATTCATGCTCCATGGTGTGGTCACTGTCAAAGATTAACACCAGAATGGAAGAAAGCAGC  
AACTGCATTAAGATGTTGTCAAAGTTGGTGCAGTTGATGCAGATAAGCATCATTCCTAGGAGGTGAGTATGG  
TGTTCAAGGATTTCTACCATTAAGATTTTGGATCCAAACAAAACAGACCAGAAGATTACCAAGGTGGCAGAAC  
TGGTGAAGCCATTGTAGATGCTGCGCTGAGTGCTGCGCCAGCTCGTGAAGGATCGCTCGGGGGACGGAGCGG  
AGGATACAGTTCGGAACAAAGGCAGAAGTGATAGTTCAAAGTAAGAAGGATGTGATTGAGCTGACAGACGACAG  
CTTTGATAAGAAATGTTCTGGACAGTGAAGATGTTGGATGGTTGAGTCTATGCTCCTTGGTGTGGACACTGCAA  
AAACCTAGAGCCAGAGTGGGCTGCCGAGCTTCAGAAGTAAAAGAGCAGACGAAAGGAAAAGTGAACCTGGCAGC  
TGTGGATGTACAGTCAATCAGGTTCTGGCCTCCCGATACGGGATTAGAGGATTTCTACAATCAAGATATTTCA  
GAAAGGCGAGTCTCCTGTGGATTATGACGGTGGGCGGACAAGATCCGACATCGTGTCCCGGGCCCTTGATTGTG  
TTCTGATAACGCCACCTCCTGAGCTGCTTGAGATTATCAACGAGGACATTGCCAAGAGGACGTGTGAGGAGCA  
CCAGCTCTGTGTTGTGGCTGTGCTGCCCATATCCTTGATACTGGAGCTGCAGGCAGAAATCTTATCTGGAAGT  
TCTTCTGAAGTTGGCAGACAAATACAAAAAGAAAATGTGGGGGTGGCTGTGGACAGAAGCTGGAGCCAGTCTGA  
ACTTGAGACCGCGTTGGGGATTGGAGGGTTTGGGTACCCCGCATGGCCGCCATCAATGCACGCAAGATGAAATT  
TGCTCTGCTAAAAGGCTCCTTCAGTGAGCAAGGCATCAACGAGTTCCTCAGGAGCTCTCTTTTGGGCGTGGCTC  
CACGGCACCTGTAGGAGCGGGGCTTCCCTACCATCGTTGAGAGAGAGCCTTGGGACGGCAGGGATGGCGAGCT  
TCCCGTGGAGGATGACATTGACCTCAGTGATGTGGAGCTTGATGACTTAGGGAAGATGAGTTGTGAGAGCCACA  
ACAGAGGCTTCAGACCATTTCTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACTTT  
CTTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACACTCAGATGACTCTACCATGGCC  
TTTTAACCAAGAAGTAGTACTTGATTGGTCATTTGAAAACACTGCAACAGTGAACTTTGCATCTCAAGAAACA  
TTGAAAAATCTATGAATTTGTGAGCCGGTGAATTGAGTCGTATTCTGTACATAATATTTTGAAGAAAACCTG  
GCTGTGAAACATTTTCTCTCTGACTGCTGTTGAATGTTCTTGGAGGCTGTTTCTTATGATATGGGTTTTTTTT  
AATGTGATCCCTTCATTGTAATATTAATGGCTTTTCCATTAAAGATAAATTTGGAAGAAAGAAAAA  
GGAATTC



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**FIGURE 942**

MALLVLGLVSCFFFLAVNGLYSSDDVIELTPSNFNREVIQSDSLWLVEFYAPWCGHCQRLTPWKKKAATALKDV  
VKVGAVDADKHHSLGGQYGVQGFPPTIKIFGSNKNRPEDYQGGRTGEAIVDAALSALRQLVKDRLGGRSGGYSSGK  
QGRSDSSSKKDVIELTDDSFKNVLDSEDVWMVEFYAPWCGHCKNLEPEWAAAASEVKEQTKGKVKLAAVDATVN  
QVLASRYGIRGFPTIKIFQKGESPDYDGGRTSDIVSRALDLFSDNAPPELLEIINEDIKRTCEEHQLCVVA  
VLPHILDTGAAGRNSYLEVLLKLADKYKKMMGWLWTEAGAQSELETALGIGGFGYPAMAAINARKMKFALLKGS  
FSEQGINEFLRELSFGRGSTAPVGGGAFTIVEREPWDGRDGLPVEDDIDLSDVELDDLKDEL

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FIGURE 943

GCGACCGCTCGTCCGCCCGCTTGAGGCCCGCGGGGAGCGCGCGCAATTTCGTGGCCCGCGGGGGGGCGGCCCTC  
CCGGCATCTTCGCGGCGACCAAGGACTACCAAGGAAGGGGAGCGGCTGGGATGCGCGTCCGCGGCCCGCGAGTA  
CAAAGCGGGCGACCTTGGTCTTCGCGCAAGATGAAGGGCTACCCGCACTGGCCGCGCCGATTGATGAACTCCCAGA  
GGGCGCTGTGAAGCCTCCAGCAACAAAGTATCCTATCTCTTTTTTGGCACCCATGAACTGCATTTCTAGGTCC  
CAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGAAAGTCAAACAAACGGAAAGGATTTAACGAAGG  
ATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCTACCAGGCAATTGAGCAACAGAGCTCTTCAGA  
AACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGGAAGAAGGTGATAGAGTAGAAGAAGATGGAAA  
AGGCAAAAGAAAGATGAAAAAGCAGGGCTCAAAACGGAAGATCATATACTTCAAAGAAATCCTCTAAACAGTC  
CCGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAGAAAGAGGAAAAACAAAGCAGCTCTGAGGGTGGAGA  
TGCGGGCACGCACACAAGAAACACAACCTTCAGACTTGCAGAAACCAAGTGAAGGGACCTAACTACCATAATGAAT  
GCTGCATATTAAGAGAAACCACAGAAGGTTATATGTTTGGTTGTCTAATATTTCTGGATTGATATGAACCAAC  
ACATAGTCCTTGTGTCAATTGACAGAACCCAGTTTGTATGTACATTATTCATATTCCTCTCTGTTGTGTTCCG  
GGGGAAGACATTTTAGCCTTTTTTAAAGTTACTGATTTAATTTTCATGTTATTTGGTTGCATGAAGTTGCCCT  
TAACCACTAAGGATTATCAAGATTTTTCGCGAGACTTATACATGTCTAGGATCCTTTTATCAAGGCAGTTATGAT  
CATCGTTTTCTGCCTTGACCCCACTCATCAACACTCAGTTAAATATAAATTAACATTTTTAGATGACCAC  
TCAACATAATGCTTTAAGAAATGGAATTTCTCTCTGTGACAGAACCCAGGAATTAATTCCTAAATACATAACGTTG  
GTATATTGAAGACGAAATTAATTTGGTCCTTCAGTTTGGGCCATGTGTAAGGTTTAACCATATTGTAATAA  
TCTATTCGGTATTAGAAATAGCTAGTTGACAGCTTATACCTCAACATTCATATTGTTATGTACACAACTAAG  
TTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAATAAAGGCAATGATTTATTTTTTCCAGTGC  
CAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTTTAAAGCTGGAATCAGCAACAGCCCTATGGG  
AAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAAATGTTTCTTTTGGAACTACAATTAGAAT  
AGTTAATATTCATCCTTAAACCATTTATTATGTGTACATTATTGTGCTATTGTGATATAAGAGATTTTATTAT  
TTTTATGCCAGCTTATATTGTGAGAACACATTAGTCAGTTTGGGTTTTATCAATCCTGTTAATGCTTGTCTTGT  
GAACATCTTTCGCTATTACCGTTTGTAGTTGAAAAGTTTACTGTAAAAAATCAAACAAAAAATGTTATTG  
TTTTTACAGAATAAATTTATTGGAATGTGA

**FIGURE 944**

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPVGKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS  
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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FIGURE 945A

AATTTCGAGCTCGTCGACCGGTCGACGAGCTCGAGGGTCGACGAGCTCGAGGGCGCGCGCCGGCCCCACCC  
TCGCAGCACCCCGCGCCCGCGCCCTCCGACCGGGTCGACCGGAGCCATGGGGCGGAGCGCAGTGAGCACC  
**ATG**GAGCTGGCGGCCTTGTGCGCGTGGGGGCTCCTCTCGCCCTCTTGGCCCCCGGAGCGCGAGCACCAAGT  
TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCGAGACCACTGACAGCTCGCCGCACTTAC  
CAGGGCTGCCAGGTGGTGCAGGGAACCTGGAACCTACCTACCTGCCACCAATGCCAGCTGTCTTCTCTGCAG  
GATATCCAGGAGTGGAGGGGTACGTGCTCATCGCTCAACAACCAAGTGAAGGAGCTCCCACTGCAGAGCTCGGG  
ATTGTGCGGACCCAGCAGCTTTTGAGGACAACATGCCCTGGCCGTGTAGACATGGAGACCCGCTGCAAACT  
ACCACCCCTGTACAGGGGCTCCCCAGGAGGCTCGGGAGCTGCAGCTTCGAAGCTCAGAGATCTTGAAG  
GGAGGGGTCTTGATCCAGCGGAACCCCGAGCTCTGCTACAGGACAGATTTTGTGGAAGGACATCTCCACAAG  
AACAACAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCTGCCACCCCTGTTCTCCGATGTGTAAG  
GGCTCCCGCTGCTGGGGAGAGAGTTCTGAGGATTGTGAGAGCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC  
CGCTGCAAGGGGCCACTGCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCCAAGCACTCT  
GACTGCCCTGGCCTGCCCTCCACTTCAACACAGAGGGCATCTGTGAGCTGCACTGCCACGCCCTGGTGACCTACAAC  
ACAGACACGTTTGAGTCCATGCCAACTCCGAGGGCGGTATACATTGGCGCCAGCTGTGTGACTGCTGTCCC  
TACAACCTACCTTTCTACGGAGCTGGGATCTGCACCCCTCGTCTGCCCTGCAACCAAGAGGTGACAGCAGAG  
GATGGAACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCGAGTGTGCTATGGCTGTGGCATGGAGCACTTG  
CGAGAGGTGAGGGCAGTTACCACTGCAATATCCAGGAGTTTGTGGCTGCAAGAGATCTTTGGAGGCTGGCA  
TTTCTGCCGGAGAGCTTTGATGGGACCCAGCCTCCAACCTGCCCGCTCAGCAGCAGGAGCTCCAAGTGT  
GAGACTCTGGAAGATACAGGTTACCTATACATCTCAGCATGGCCGACAGCTGCTGACTCAGCGTCTTTC  
CAGAACCTGCAAGTAATCCGGGACGAATCTGCACAAATGGCGCTTACTCGCTGACCTGCAAGGGCTGGGCATC  
AGCTGGCTGGGGCTGCGCTCTACTGAGGAACTGGGCAGTGGACTGGCCCTCATCCACCAATACACCACTCTGC  
TTCGTGCACACGGTGCCCTGGGACCACTCTTTCGGAACCCGACCAAGCTCTGCTCCACACTGCCAACCGCCA  
GAGGACGAGTGTGTGGCGAGGGCTGGCTGCCACAGCTGTGCGCCCGAGGGCACTGCTGGGGTCCAGGGCCC  
ACCCAGTGTGTAACCTGACAGCACTTCTTTCGGGGCAGGAGTGCCTGAGGAATGCGCAGTACTGCAGGGGCTC  
CCCAGGAGTATGTAATGCCAGGCATGTTTGGCGTGCCACCTGAGTGTGAGCCCAAGATGGCTCAGTGACC  
TGTTTGGACCGGAGGCTGACCAGTGTGTGGCTGTGCCCACTATAAGGACCTCCCTTTCGCTGGCCCGCTGC  
CCGACGGTGTGAACCTGACCTCTCCTACATGCCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT  
TGCCCATCAACTGCACCACTCTCTGTGTGGACCTGGATGACAAGGGCTGCCCGCCGAGCAGAGACCGACCT  
CTGACGTCATCTGCTCTGCGGTGGTTGGCATTCTGCTGGTCGTGGTCTTGGGGTGGTCTTTGGATCCTCATC  
AAGCAGCGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAACCGAGCTGGTGAGGCGCGTG  
ACACCTAGCGGAGCGATGCGCAACAGCGGCAGATCGCGATCCTGAAAGAGCAGGAGTGAAGATGGTGAAGGTG  
CTTGGATCTGGCGCTTTTGGCAGCTCTACAAGGCATCTGGATCCCTGATGGGGAGAATGGAATTTCCAGTG  
GCCATCAAAGTGTGAGGGAAAAACATCCCCAAAGCCAACAAGAAATCTTAGACGAAGCATACGTGATGGCT  
GGTGTGGGCTCCCCATATGCTCTCCCGCTTCTGGGCTATCGCTGACATCCAGGCTGCAGCTGTGTGACACGCTT  
ATGGCCCTATGGCTGCCCTTTAGACGCTTCCGGGAAAAACCGGCAGCGCTGAGCTCCAGGAGCTGACATGG  
TGTATGCAGATTGCCAAGGGATGAGTACCTGGAGGATGTGCGGCTCGTACACAGGAGCTTGGCGCTCGGAAC  
GTGCTGTGTCAGAGTCCCAACATGTCAAAATTACAGACTTCGGGCTGGCTGGCTGTGGAATGACGAGACA  
GAGTACCATGTCAGTGGGGCAAGGTGCCATCAAGTGGATGGCTGAGTCCATCTTCGCGCCGCTGCTCACC  
CACCAGAGTGATGTGTGAGATTATGGTGTGACTGTGTGGAGCTGATGACTTTTGGGGCCAACCTTACGATGGG  
ATCCACGCCCCGGAGATCCCTGACCTGCTGAAAAGGGGGAGCGGCTGCCACGCCCCCACTGCAACCATGTAT  
GTCTACATGATATGGTCAAAATTTGGATGATTGACTCTGAATGTGCGCAAGATTTCCGGAGTTGGTGTCTGAA  
TTCTCCCGCATGGCAGGGACCCCAAGCGCTTTGTGGTATCCAGAATGAGGACTTGGGCCAGCGAGTCCCTTG  
GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA  
CCCCAGAGGGGCTTCTTCTGTCAGAGCCTTCCCCGGGCGCTGGGGCATGGCTTCCACACAGGCACCGCAGCTCA  
TCTACAGGAGTGGCGGTGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGCCCCAGTCTCCAAGT  
GCACCCCTCGAAGGGGCTGGCTCCGATGTATTGTATGTTGAGTGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT  
CTCCACACATGACCCACAGCCCTCTACAGCGGTACATGTAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT  
GGCTACGTTGCCCCCTGACCTGACGCCCCAGCCTGAATATGTGAACAGGCAGATGTTGCGCCCCAGCCCCCT

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**FIGURE 945B**

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA  
GGGAAGAATGGGGTCGTCAAAGACGTTTTTGGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCCA  
GGAGGAGCTGCCCTCAGCCCCACCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG  
GACCCACCAGAGCGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCAGAGTACCTGGGT  
CTGGACGTGCCAGTGTGAACCAGAAAGGCCAAGTCCGCAGAAAGCCCTGATGTGTCTCAGGGAGCAGGGAAGGCCT  
GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACTTCAGGGGAACCTGCCATGCCAGGAACCTGTC  
CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC  
TGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCAGCTTGG  
CCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT  
GTCTAAGAACAAGCGACCCATTTCAGAGACTGTCCCTGAAACCTAGTACTGCCCCCATGAGGAAGGAACAGCA  
ATGGTGTTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACTTTTTTTGTTTTGTTTTTAAA  
GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGGTCTTCTCCACACCCACT  
TTGTCCATTTCGAAATATATTTGGAAAAAC

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**FIGURE 946**

MELAALCRWGLLLALLPPGAASTQVCTGDTMCLRLPASPETHLDMLRHLYQGCQVVQGNLELYLPTNASLSFLQ  
DIEVQGYVLIAHNQVRQVPLQRLRIVRGTLQFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQLRSLTEILK  
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTLIDTNRSRACHPCSPMCKGSRCWGESSEDCQSLTRTVCAAGCA  
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLFHNHSGICELHCPALVTYNTDTFESMPNPEGRYTFGASCVTACP  
YNYLSTDVGSCTLVCPHNNQEVTAEDGTORCEKCSKPCARVCYGLGMEHLREVRAVTSANIQEFAGCKKIFGSLA  
FLPESFDGDPASNTAPLOPEQLQVFETLEEITGYLYISAWPDSLPLDSVFNQLQVIRGRILHNGAYSLTLQGLGI  
SWLGLRSLRELGSGLALIHNNTHLCFVHTVPNDQLFRNPHQALLHTANRPEDECVGEGLACHQLCARGHCWGP  
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECCQPQNGSVTCFGPEADQCACAHYKDPFFCVARC  
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI  
KRRQQKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTIVYKGIWIPDGENVKIPV  
AIKVLRENTSPKANKEILDEAYVMAGVGSPPYVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNW  
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPPNHVKITDFGLARLLDIDETEHADGGKVP IKWMALESILRRRFT  
HQSDVWSYGVTVWELMTFGAKPYDGIPIAREIPDLLEKGERLPQPPICTIDVYIMVCKWMIDSECRPRFRELVSE  
FSRMARDPQRFFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEYLVPPQQGFFCPDPAPGAGGMVHHRHRS  
STRSGGDLTLGLEPSEEEAPRSLAPSEGAGSDVFDGDLGMGAAGLQSLPLTHDPSPLQRYSEDP TVPLPSETD  
GYVAPLTCSPQPEYVNPQDVRPQPSPSPREGPLPAARPAGATLERAKTLPSPKNGVVKDVFAFGGAVENPEYLTPO  
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVVP

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FIGURE 947

GGCACGAGGGCGCGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCTAGCTAGCGCCGCCGCCCGCGCGCCCT  
GCGCCTCCAGCTCCTTCGCCCCGCGCGGCCCGCGCGCTTCGCGAGCTCACTGGGAAGCGCTCACTTGGGA  
CGCGCTCACTTGGGACCGGCTACCTGCTCCGCGCGCTTGGGCTTCAGGATGAAGGACCGCTTGGAGCAGCTGAA  
GGCCAAGCAGCTGACACAGGATGATGATACTGATCGGTTGAGATTGCTATCGACAACACGGGCTTTTATGGACGA  
GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAACT  
CTACAGTATCATTTCTCTGACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGACGAGCTCAGCACTGAGAT  
TAAGAAAAGGGCCAAACAACGCTCCGGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTACGGTC  
ATCGGCAGACCTTCGGATTCCGAAATCCAGCACTCTGCTCTTTCGGAAGTTTGTGGAGGTGATGACCAATA  
CAATGAAGCTCAAGTGGACTTCGAGAACGACGACAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAA  
GACAAACGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGCGCATCTTCACTTCTGGGATCATTGACT  
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA  
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGGAATCAGGGTGAGATGTTAGATAACATAGAGTT  
GAATGTATGCACACAGTGGACCCGTTGGAGAAGGCACGAGATGAACAGAAAAAGCTGTGAAATACCAAGATCA  
GGCCCCGAAGAAATGATAAATTATCATTGTGCTAGTAGTTGTGTGCTGGGCATTTTAGCATTTGATTATTTGGACT  
TTCGGTTGGGCTGAATTAAGAGTGGCCTAAGAGGCTGCTGCACCTGAATAAACTGATTCACTCCAGACTGGTGT  
GGCCACCTTTCTCAGATGAGAAATGGAGTCTGAATGGCCTCTCTGAGAGCGAGTGCACCCGTTCTCTTTGTTT  
CCTTGCAACCACTTTGGAACCTGACTCAGCTAACAACTAGCCCTGGGGAAATGTGATCTACCTGATGCCACCT  
GAGTTCTCCCCAGAGCCTCTCTCGCCCCACCACTCTCAAGTACCTTTCTCTGGACTGTGTGGAGCCACCCA  
GCTTTTCTCTCTCTGTTGTGTGTGATGATTATGCTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC  
TGATTTTTCTCACTCATGGAGTATCTCCAGAACTGCAATGATTTTTTGGGGGAGTATCTTTAAACAAAGC  
AGAAATGATTCTCTAAGTTTGGCAACAAGAGGCTTGGAATCTGAGCTCTTCACTTGGCAGGATGCCAATCCTGTT  
TGTGTCCGTATGTCTGAAACATGAGGAGCTGGCAGATGTCAATTTTGGTCTAAAGAGCTGACTTGTTTGAAAT  
TCAGCCTTAATAAAGCTCTTAGTTGTTCACTTGGGGGGCACTTTGATTTTTCTCTGTGTGTAGTCTCTCAT  
ATTTACTCAAGGAGGACCAAGGATGATACAGTCACTGAGGTTATGCTTTGCAAAAGGCTGACGGATGGAATAT  
GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATGTTAGAAAGTGATGCTTTGTGAGACTATTGCTTGGGG  
CCAAAAATAATCAGGATTTTAAATTTGGGCAAGGACAAAGGTGCTAGAAATCTTAAGCTCTGGAATATTTCAATGA  
CACTGGTGTATTCACTCAITGTTCCAGATGATTCTAATTGTGTATGAAATGATGTACACATAAGTGTGTGTG  
TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAAGCCAATTTGAGCTAGGATAAA  
AATTGGGTAAGAGCAATTTGCTTACCTGCAAAATGAATCACTGTGGAATGTGATCTTCCCATATCATCAAGAAAC  
TGTTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT  
CTGCTTAGCAGACAGAAGGTATAATTTTGACACCTTTCCCACTTGGTGCTATGTCTAGGCTTGTCTTGAGAA  
CATCCCTCAGTAACCTTGATATTCACTGACCTACAGGATGTCCTCTCGAGGGCTGAGTCAAGTGGGGAACACC  
AGAGGCTACACAGTAGCTTCTCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATCTTTATC  
ATGGAACAGCAGCAGCAGCGCTAGGAAATCTCAAGTGTAGTGTCTGTCTAACCCAGTGGTAATCCCTTAG  
ATCCCTGTGCTCTCGCAGTCTCCTTGATTTTGGGTACCATGATATATTTCCGCTTTGACTTTAAGCCTTTT  
TAGGATAGGGTAAGCACCTTAATTCAGGCAGTGCCATTAGCTTCTTTGCAAGGCTACTTATGGCCGGTCAC  
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTTTGCCCATGGCTATGATGTGACAGAGTGGATGGGCTCCA  
GCAACAGAGACAAAAATAAAAGGCTTTGCTCTCTGCACTGAGGCTGGGGCTTACAGTTTGGAAATAC  
AACATGTGAAGGTTTTTGTGTTGTTGTTGATTTTTTATGATGAACCTGATTATTTTATGCTAATTTAAAAATA  
AAATGACTTTGTATTGATTGTGAAAAAATAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 948**

MKDRLEQLKAKQLTQDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVVEAKKLYSIILSAPIPEPKTKD  
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFFVEVMTKYNEAQVDFRERSKGRIQ  
RQLEITGKKTDEELEEMLSEGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ  
GEMLDNIELNVMHTVDHVEKARDETKKAVKYQSQARKKLIIIVLVVLLGILALIIGLSVGLN



CGGCACGAGGCAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCGGTACC**ATG**

GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAA  
CCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCACCATCTACTCCATCATCTTCTTAACT  
GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTAC  
AGGCTGCACCTGTCACTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAAC  
TGGTACTTTGGGAACCTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTGTCCCTCATC  
CTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTG  
GCTGAAAAGGTGGTCTATGTTGGCGCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAAC  
GTCAGTGAAGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTT  
CAGCACATCATGGTTGGCCTTATCCTGCGCTGGTATTGTTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTG  
TCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGT  
TGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTT  
GAGAACACTGTGCACAAGTGGATTTCATCACCGAGGCCCTAGCTTTCTCCACTGTTGTCTGAACCCCATCCTC  
TATGCTTTCTTGGAGCCAAATTTAAACCTCTGCCAGCAGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTC  
AAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTATCTGTTTCCACTGAGTCTGAGCTTCTCAAGTTTTCACCTC  
AGCTAAACACAGATGTAAGAGACTTTTTTTTATACGATAAAATAACTTTTTTTAAGTTACACATTTTTTCAGATATA  
AAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTGGATTTTGCCTTGTGTTTTCTTAGTTTTTTCGTGAA  
GGTTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCCAAGT  
TCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCAGAGCGTGTAGTGAATCACG  
TAAAGCTAGAAATGATCCCAAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGAACGTTTTTCTGTTCTT  
AAGACGTGATTTTGTGTGAGAAGATGGCACTTATAACCAAGCCCAAGTGGTATAGAAATGCTGGTTTTTCAGT  
TTTCAGGAGTGGGTTGATTTACGACCTACAGTGTACAGTCTTGTTATTAAGTTGTTAATAAAAGTACATGTTAAA  
CTTAAAAAAAAAAAAAAAAA

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**FIGURE 950**

MEGISIYTSNDYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMSTDK  
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRL  
LAEKVVYVGWIPALLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFHIMVGLILPGIVILSCYCIIISK  
LSHSGKHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQCEFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESSSSFHSS

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FIGURE 951A

AAGATGGCTGCCACGGGGGCTCCGCGCGTCTCGGCGCTGAAGGGGTTAATTCAACAGTTTACCACCATTACCGGTGCAAGTGAAAGTGTAGGAAAAATATGCTTGAAGCGTGCAACAATAATCTGGAATGGCAGTCACTATGTTTGTGATGGTGGGAGGAATCGCTGAAGAGCCAGTACCAGTTCAGCAAGTGCTCTACTGTGCAGACCACAGAGAAGAAAGTTCGTGGCCCAATTCCTCAAAAGCAGGAATACTGGTGAACCAACCAATTTTGGTGCTCCTAAAAGACGACGGCCTGCACGTTCAATTTTGTATGGTTTCCGGGATTTTCAGACTGAAACTATTCCGGCAAGAACAAGAAATAAGAAATGGAGAGCTATCGATAAAGAAATTAACCTACCTTGCAGATCTATTCCGGCCACCAATGATTTGTATGTCATAAAGCGAGCTTTGAACACGAAAAGAGTGTGGCCAGATGCAAAATGAAGTGGCTGATGATAAACAACTTCAAAATGTTCAAGACTTTGCATGTCAGTGCCTCAACCGCGATGTGTGGAGCAACGAAGCTGTGAAGAATATTATCCGGGAACTATTTCATTTTCGGCAGGTTTATCATGACAGTGAAGGAGTGCAGAGATACATACAGTTTTATAAGTTAGGGGATTTCCCTATGGTTTCCATATGGACCCAGGACAGGTGAGAAGCTAGTAGAATGGGACCAGTTAGATGTATCTTCTTCTTGGACCAAGTGACGGGATTTCTGGGTGAACATGGACAACCTGGATGGACTTTCTAGCAGTCCCCCAAATAATGTGCCCGTTGAGAGCGCTTATAGATGCAAGTGAAGACAGCCAGCTAGAAGCTGCCATCAGAGCCTCCTTACAAAGAACACATTTTGATTCAACACAGACAAAACAGGATAGCCGCTCAGATGAAGAATCTGAATCTGAACTTTTCTGGCAGTGAGGAGTTTCATATCCGTTTGTGGCTGATGAAGAAGAAGAGGTAGAGAATCTTGCCAAAGTGCAGAAAGCTCTCCCAACAAAGATTTGGGCGATAGAAAAGAGGAGATAGAAGGCCGCTGACTGAGCCACCACTCAGAACTGATCTTGGAAACGCCCACAAAACCCCAAGGATTGCCAGCTGTGGATTTCAGAGATCTGGAGATGCCACCTGAAAAGCAAGTGGAGTAGTGGAGGGGATAGATGTAAATGGACAAAAGCACAGCTGATGTTCGGGTATCCAGATGGAAAAGGGAACGATCACTTTCCAGAGCAAGCTAAACTGCTAGCTTTGGTGAAGCACGTGCAGTCTAAAGGATACCCAAATGAACGTTTTGAACCTCTCACCAACTTTCTCGAAGGAAATATCTCATCTGGACTATGATATTACATTGCAAGAGCGAGGCCCTTGTCTCAAGAGACTGTCCTTGTACAGGAAAGAAATTAACACCATGGCTGACCTCTCTCAGCTTACCCCTTTTTCCCTTTTCCGTGTGAGATACATGTCTAAGTATGCTTTTGGCTCATAGGACCACAGAGCCAAAGTTGGGCAAGCAAGTCACCTTCTCTTATTTCTTGATCTCTCTATAATCAGTCTCTTCTCCCCCTTTGTGTTCTTCTCTCTCTCTTTTCTCGCTCCCCACTCCGTACCCCTTCTGCTGCTCCCCCAACACTTTTCTTCTTACCTAATCTGGTGACCAAACTGAAGTGAAGGATTAAGACCTCTCTAGTACTAGCAGCAGGAATGTGTGTTCCAGTAAGTGGTCTCTTGACAGGGCACTTTTGTGGGATCAAATGTTAACGTTACTCCCCAGACTCTTCTGGGCAAGAGGAATGGCTAGATTAGAGTAAGAACAACCTCCCTTTTTTGTAAAGTCCCCGTGTTTAGCAGGGAGAAGAAATCTCTACATGCGGTTTGGTTTTGTGTTGTTCTTCATGTGGAAATGTCGCTTAACAAAATATCCAGGCTTTTGTGTTACGTGGAAAAAGCACTCCCTGTGAATGATTGCTCATCACTTAAAAACCTTTTCAAAGGATTTCAATGTTCCCAAGCTATAAGGACTATTTCCATGACGTGTTATTGGCAGATGAGTGTAAATGTGGAGCATATAGCATGGGGTGGCTTTCAATGTCCTAACCTGAGACAGTTTTTCTTATTACTCTGTATTGATCTCTGCTAGTCCAAGAATGGACATGAAGTGAACCTATCTGTAGTATGGGATAGGAAGGTCTTGTCTATTTTGCCAGCACAGCATATTAGTTCCCTTTGGAGCCCTCCATGTGCTGAGCTCGCAGTGATCTGTAGGAAGGCAGCTGGTCAATAATCATGCTAGTACAAATGGCTTGAATTTGTAACCCTATAGGTTATTGATTGCTGTGTTGTTTCAGGCATACTTAGGTATGCTCCCTGGGAAAAAGAAAACCATTCAGCTGAGAGTTGCTAACCATGTTCTTTTGGTTAGAAAATATGGTTCAATTTTGGCCCTGGTTGGAATAGTCTCTAAAGGCTCTGGTGACTGAATGAACATGAGTCCGATGCTTTTCTTCAAAGGATTAACAAAAGGAAAGGCTCTCTAAGGGGAAGACCTTTCAACTCCATTGAGAAGACAACATTTAGTAAGGAGGATGGCGGAGGTTACTAGTAATTTTCAGATGTCTTGGGCTTTTCTGCCAACAAAACCAAAATCAAATTAGAGTTGGTGAAGAACTTTCTCAGTGTGTTTAGAGAGGCCATCTGAATCTGTAGAATAACCATTAACATCAACTTACCCCTAGCTCATTTTCGTATTTGAAGCTTAAATGGAGTCTCTGAAGGGGGGTAGTCGTGATTCTGGTGGCAAACTAGAACCTTTAACTGTGAATAATGAAAATATTAATGGACCTTTTGTGCACTTGAGGATTTAGATTGATCTTTTCTGAGGAGCGTATGTTCTCAAGTGTGCTAGAGACCTTTAGTTTTTCTATCTTAAAGTTGCTCTTGGCAATTAGGGGATTTGGGAAAAGAAGAAAAAAGATGCCATGTTGTGTGCTAGTACACAGTTATAGGATATGGTTTCTAATGGTTGAATTTGAGGAACCTCTCCCTAAAGAAATGAGTTTATTTCTTCTTCCCAAGGAAATCATGGAAAATCTGTTTTCTTCTCAGTGAGCTTTTGAATTAATGTTCTTAAATTTTTTCTAAGTCTGTGAAGTGTATGTATAAGTATATAATTTGTATAAATATTTATAAATATTTATAAATTTACGTTTCTTCTAACCCTTGTAGTCAAAGTTTACTTAACTAGCAGCTTCTGATTTTGTAGTGAGTAAGATGTTTGTAGTGAAGATGCTTGGAGGTAAACATATTTGTGTAGTAGACAGCTCAGAAATCCAAAATTCAGGGAATACCTGTCAAAGGTCAGCTGGAGGGTAAACATATTTGTGTAGTAGACAGCTCAGAAATCCAAAATTCAGGGA

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**FIGURE 951B**

GGGCACAGGGTAAAGAAGAGAGGTTTGCTCAGCTTTGTGCTCTGATGGCACCCATCTGTACTCCAGCAAAGTCATA  
GCTGAAGCCCAATCGCTCAACGTGTGAAGTCAATCATTTTTTCTATAGGGCTCTGTTTCCTTTTCTTTACCTT  
CTAGCTTCTCTTGATAAAACAGTTGGGAGAACTGCCAACGTGTTTCATCAGTGAGAGGGTGTGGTTCTTTCCGATA  
TGTTTCAGCACGTGCATATTCATTTTATGAGAAACCAAAGTAACTTCTTCAACTCGGGTTACTGTGGGATGATTAAG  
TAGATATAAAGTGATTTAAAGACAGCATGGTACTTTCACTCAGCTTAAACATGCAGCTGGGATGTCTACAATACA  
AGATGTGGTGGGTTTTATTTTATTTTATTTTGAGGCAGGAGTGTAATTATCTTAGGGTTGATATAAAGGCCCATG  
GGAAGAGTTACGGATTGTACATGGGAAGAATCCATAAAGGAGTATTGCCTTGCTCAAGAATTTAATCCGCTGACAG  
TATGCTTCTTCCAGTTTGCCTTACTTCTCTGCAAGTTTCTTTGCTCCTTAGGGCAGAGGTTTTATTGAATAGAT  
TAAATGAGGTCAGTAAGATTAGTTAAAAATAGTCATTCCTTGTTGGGTGTGGACACAGCTTGAAAGGAGTGTTTA  
AAAAAAAAAAGCTAGGGAGGAAAAAGAACAGAAAGATAGACTTCGAGAGTGATAAGAGAAAAATACAGGGAGATG  
GAATGGAACTACCAGGAAGGCCGGCGCGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCGGAGGTGGG  
CAGATCACCTAAGGTCAGGAGATCGAGGCCAGCCTGAGCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAA  
AATTACCTGGGTGTGGTGGCGTGCACTGTAATCCAGCTACTCAGAGGCTGAGGCAGGGGAATGGCTTGAACCT  
GGGAGGCAGAGGTTGCAGTGAGCCAAGATCGCACCATTACACTCCAGCCTGGGCGACAAAGCGACACTCCATCTC  
AAATTT

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**FIGURE 952**

KMAAHGGSAASSALKGLIQFTTTITGASESVGKHMLEACNNNLEMAVTMFLDGGGIAEEPSTSSASVSTVRPHT  
EEVRAPIPQKQEILVEPEPLFGAPKRRRPARSIFDGFRDFTETIRQEQLRNGGAIDKKLTTLADLFRPPIDLM  
HKGSFETAKECGMQNKWLMINIQNVQDFACQCLNRDVWSNEAVKNIIREHFIFWQVYHDSEEGQRYIQFYKLG  
FPYVSILDPRIGQKLVEWHQLDVSSFLDQVTGFLGEHGQLDGLSSPPKKCARSESLIDASEDSQLEAAIRASLQ  
ETHFDSTQTKQDSRSDSESESESELFSGSEEFISVCGSDEEEVENLAKSRKSPHKDLGHRKEENRRPLTEPPV  
PGTATNHQGLPAVDSEILEMPPEKADGVVEGIDVNGPKAQLMLRYPDGKREQITLPEQAKLLALVKHVQSKGY  
ERFELLTNFPRRKLSHLDYDITLQEAGLCPQETVVFQERN

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FIGURE 953

GGAGGGCCCCGGCGCGACAGCGGAGGCAGAGAGGAAGGCGGTCTGAGAGCTTCAGAGAGCGATGGAAGACAAA  
TGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAGTACTTTCTGGGCAGAGCCCCGC  
ACTTTTCACTGTTACTGATCCTCGAAATCTGCTGCTGTCGGGGGCACAGCTGGAAAGCTTCTCGGAACATCGTGC  
AGAACATACAGGGCCGGCGTGGTACCCCGAGGATCACCGAGGACAGCTGTGGAGGGCCAAAGTATGTGTATGACT  
CCGCCTTCCATCCGGACACAGGGGAGAAGTGGTCTGATTGGCCGCATGTCAGCCAGGTGCCCATGAACATGA  
CCATCACTGGCTGCATGCTCACAATTCTACAGGAAGACCCCAACCGTGGTGTCTGGCAGTGGGTGAATCAGTCTCT  
TCAATGCCATTGTTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCCATG  
TGAGTGCCACCACTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTACCAAGCACCTGCCCCCTTGGTCG  
GCAGATTGTGCCCTTTGCGCAGTGGCAGCTGCCAAGTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC  
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTGAGAGCTTGGCTACTCGGTGACTGCAGCCCAAGCAGGGAATCT  
TCCAGGTGGTGATTTCAAGAATCTGCATGGCGATTCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGG  
AGAAGAAAGACTTCCCTGAAGCGCCGCCCTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG  
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCGCCCAAGAGCTCCATACACATAAGCAACCTGGAACCCAGAGC  
TGAGAGCTCAGATCCATGAGCAAAACCCAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTTCAGGAGGGGTGAG  
CCTCTGTCCCTCCCTCACTTCTTGGGCTGCTGCTTTAGTGGAGTCATGCACCCCTACCACTTGGCTATCTGC  
CTAGCACTGGGCAGGGGCTTGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC  
CATAAGGCTTTTCTCCCTTCTCTGGTTTCAAAGATCAGAGCACATAAACCCCTCCTGTGCTTGAGTGTCCATGCA  
TATACATACATGATACACATGTGTATGTGTACATTGGGTCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG  
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCTTCT  
CTAAACTGTATACACAGCCAAGTATTTTGTATGGCACTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT  
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTACCTCCCAA  
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGAGGCAGGGGACTTATGATCCCTCAGTGCCATCCC  
TTGTATCCTGGAATAGTCCATTTCCCTCCTCCTCTCTACCAGACAAAGGAGTGCCTGTGTCTGTACTGCCCT  
CGCTGTCTCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCCTGGTGTGCTCT  
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAAACAAAAGCCACAGAGGCAGAGCAA  
GCATTTCCCTTTAAGAGCTTCCACTGCACCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA  
GGTATCAGAGAGGGGTGAACATAGGACATCCTCAAGGGCAGCTAGGCCCCGAATGTACAATGTTAAAGACAGGGAAT  
TTTGTGTTCCATTGACTTTTTTTTTTTTTTTTAAATGGAGTTTCACTATTTTGCCACAGGTGGAGTGCGATGGTGC  
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTCAAGTGATTCTTCTGCCCTCAGCTCCTCCGAGTAGTGAAAT  
TACAGGTGTGTGCTACCACTCTTGCTAGTTTTGTATTTTATAGCAGATGAGGGGTTTACCATGTTGGCCAGGC  
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCTCCCAAGCACTGGGATTACAAGCATGAGGCCA  
CTGTGCCACAGCCTGTTCCTCACTGACATCTTATAGACATTACGCAAAACCCACCTTAACTCTTTTCTTTCTTGA  
GGGTGTGGTCTGTCCCCACCTCCACCTCCACCCCTGGAAGAGGAAGGGCCCGGCATCAGTGGCTAGTCCAA  
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAAGTTACAGAGTGTAGTTAGATCCCAACTCCCATGACC  
TCTGGCTCAGTGTGGGTGGGGCAGGACAGATGAAAGGGCTCAGTGGGAACCTCTGAGAGACCTTTCCCTGTTT  
CCCCTATCAACCGCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAAGTCAAACTGTCTAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 954**

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPNLLLSGAQLEASRNIVQNYRAGVVT  
PGITEDQLWRKXVYVD  
SAFHPTGEEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNSFN  
AIVNYSNRSGDTPITVRQLGTAY  
VSATTGAVATALGLKSLTKHLPPLVGRFVFPFAAVAAANCINIPLMRQRE  
LQVGIPVADEAGQRLGYSVTAAKQGI  
FQVVISRICMAIPAMAIPLIMDTLEKKDFLKRRPWL  
GAPLQVGLVGFCVFPATPLCCALFPQKSSI  
HISNLEPE  
LRAQIHEQNPSVEVVYVYNGKL

## FIGURE 955

TGCAGGAGTTCATGATCTCCAGTCGGTGCAGCAAACCTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTIACC  
ACAACCTGAAGAATGTCAATCAAGGAGAAATATGGGAAAGATGCCACCAATGTGGGGATGAAGCGGGTTTGCTC  
CCAACATCCTGGAGAATAAAGAGGCCTGGAGCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGG  
TGGTCATCGGCATGGACGTAGCGGCCTCCGAGTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCG  
ATGACCCAGCAGGTACATCTCGCCTGACCAGCTGGCTGACCTGTACAAGTCTTCAATCAAGGACTACCCAGTGG  
TGTCTATCGAAGATCCCTTTGACCAGGATGACTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGG  
TAGTGGGGATGATCTCACAGTGACCAACCCAAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCTTCAACTGCC  
TCCTGCTCAAAGTCAACCAGATTGGCTCCGTGACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTT  
GGGGCGTCAATGGTGTCTCATCGTTCCGGGGGAGACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCA  
CTGGGCAGATCAAGACTGGTGGCCCTTGCCGATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAG  
AGGAGCTGGGCAGCAAGGCTAAGTTTGCCGGCAGGAACCTCAGAAACCCCTTGGCCAAGTAAGCTGTGGGCAGGC  
AAGCCTTCGGTCACTGTTGGCTACACAGACCCCTCCCTTCGTGTCAGTTCAGGCAGCTCGAGGCCCCGACCAA  
CACTTGCAGGGGTCCCTGCTAGTTAGCGCCCCACCGCGTGAGTTCTGTAACCGCTTCCTTAGAATCTCAGAAA  
GCCAAGCTCCCTGGAGCCCTGTTGGCAGCTCTAGCTTTTGCGAGTCGTGTAATGGGCCCAAGTCATTGTTTCTC  
GCCCTACTTTCCACCAAGTGCTAGAGTCATGTGAGCCTCGTGTCTATCTCCGGGGTGGCCACAGGCTAGATCCCC  
GGTGGTTTTGTGCTCAAAATAAAAAGCCTCAGTGACCCATGAGACGGAGATCTCGCCGGCTTTACGTTCACTCG  
GTGCTGCAGCACCTTCCGCTTCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCACCATGTCTATTCTCA  
AGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTTCACTCAAATAAAA  
AAGCCTCAGTGACCTGCATTGAGGGTTCAGCAGCATATACCTTCACACTAGGTTTCAGAGCCTGGGAAGAGGA  
ATATTAAGACATCTTAACAACAAACCAACAACATTGCCTGCATGCTAAAGAAAAATATGGGCTGGTGTGGTGGC  
TCACACCTGTAATCCCAACACTTTGGGAGCCGAGXCAG



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FIGURE 956

CCAGGGCCCTGACTAAACCTGGAGACTCGGGTGGCCGAGGGGCTTCATACCAGCTGAAGAGCGACAAGCCGCTGGC  
AGCCGCGGATCTCACC GCGCTCAGGGTTTTTAGAACTTCAGCCATAAAAAATGGGCAGAAATTTTCCTTGATCATA  
TCGGTGGTACCCGCTGTTTTCTGTGCAAACTGTGTATACGATCCTGACCAACCGCTCAGAACTCATCTCCACTC  
GTTTCACAGGCGCCACTGGCAGAGCATTTCTTTTTAAACAAGGTAGTTAACTTGCAGTACAGCGAAGTTCAAGATC  
GGGTCAATGCTCACTGGCCGCCACATGGTTCGAGATGTGAGCTGCAAAAACTGCAATAGCAAACTGGGATGGATCT  
ATGAGTTTGCCACTGAAGACAGCCAGCGATATAAGGAAGGCCGCGTGATCCTGGAACTGCTCTAGTTCTGAGAGA  
GTGAGGGCTTGAGGAGCATGTACCATCTGATAACTCTGAAGATACAGAGAGAAATCCATCTTTCCCAAGTCT  
CCTTCACTGAAAAACAAAATCTACTTACATACACTGTCACTTAGCATCAGAGTCGGATTAATGAATCGCGAAC  
AAGAGGTTGTGAGAACTCTAAGATGGAACCTTTCTTTCTTTCTTTCTTTTTTAAATTTTGTATTTTCCATCCA  
ACAGCAGTGTGTAGAGAGAATATTATGCAGATGCCGTTAATTTTTTACCCTATGTTTACATCTTGAGGCAGCAGA  
GTCTGTCTGCAGCTATGTGGTGAGCTATGTAAGGAAAAAAATCTGGGCTGTGTAGAGTGAAAAAGTGTGTTTTATG  
TCAATTGTGAAAGGAAAATGTTAGGAGTATGGTTTTTAACTTGGGCTTCATTTTTAACTTTTTTTTTTAAACCC  
AGTTATTTCACTTGATTTGCTAGCTTCAGAGAAGAGATCCGAATCTGTGCCAGCGCTAAAGGCTCAGTGTTAGC  
ATGGCTTGTGCTGGCCGCTGTGCCATATCTTGTGGAGATGAACCGTAGCACCAGAGCCCATCTCTCTGTGCA  
GTCTTGGCCCAAGATGTCACCATTCCTAGTTATTTGTCAACCACATAATTGGTGTTGATTGGAACCTTTTTCTGA  
GATGGGACAGAACTGCTGGGTGTCTTTTTCCATGTAACTTAAGCATAGTAATATAAATAAGTAATAGTTGGAT  
GCTTTTGGTCCTGTGTGCTTTTAAAAACACCTTATAAAAGAGGAGAGATTGTGAAGCAATTTTCATAGTAGT  
AAAGTTTTTTTCATCTCTTAAACTAAATTGACCATGCATATAATATTCTTTGTTTAAATGAAAGCATCTGTTG  
AAACCCGAGTGTTGCATTTAGAAAAACAGTTGAACAGAAATGCAATGTGCATTCATGCAAAAAACATTTAATCT  
GCATCTGTTTTAGAAAAAGGGGAAATGAAGCAACTGTCTAAAAAATACTGCTTTACAAAGCATTTCAGCCTTTCC  
CCCTCAGTTTTGCATTGATTTTTTGACAAGTCTGTAGAGCCTAATAGTTTCCATCAAAGGCCTAGATCTCTTATT  
TAGCATTTTTTTCAGCTCTTCTCTCAGAAGTTCAGCTGTTGAAACGAAAACGTACTTTTGTACCCCTCACATACAA  
AGGGATCAAATTTGACCTGGTGTTATTTAGCCCCAAATTTATGACATTACACAATATTTAAATGTAATGTTTC  
TTTACCCAACTACTTCTAGATATTTCTAGTATTTGCTTCTGGTGGAATTTAAATGACCGTAAATTTGGCTAATTAT  
TTGAATGAATGAATGGATGGATGTTTTGCATGCTCAATTTCTAGGTCCTTTGTCTGAAAGGAAAATTTGCCTCAG  
TTGAATTAGTGAATATTTCTGTGTTGATATTTAAAGTGACTTCTGAGTACAGTTAAGTTCCTCCTATTTGGCA  
CTGGGCTGTTGGTTAGAAGCATAGGTAACCTGATTAAGTAGGTATGATACTGCATTTGAAATAAGTGGAACAAAC  
TATCCTTTCTCCACCATGGACTCAATCTGAGAACAACAGCATTCATTTCCATTCATTTCCATACTGGCTTTTGAT  
TATATGCAAGTTCCTAGTAGCATGCCTTACCTACAGCACTATGTGCATTTGCTGTCAATAAAGTATATTTTGT  
CTTGCAAA

**FIGURE 957**

MGRIFLDHIGGTRLFSCANCDTILTNRSELISTRFTGATGRAFLFNKVVNLYQSEVQDRVMLTGRHMVRDVSKN  
CNSKLGWIYEFATEDSQRYKEGRVILERALVRESEGFEHVPDMS

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**FIGURE 958**

GGCACGAGGGAGAGAACTAGTCTCGAGTTTTTTTTTTTTTTTTTTTGTACAAGATGSCGGCAGGAGGCAGTGGCGT  
TGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCTGCGGCTCGCGCCCACTTCGGTGGACCCAGC  
GCTGAGGCGGCGCGCGGAGGCCCAAGAAATAAGAAGCGGGCTGGCGCGGCTTGCTCAGGAGCCGCTGGGGCT  
GGAGGTTGACCACTTCTTGAAGACGTGCGGCTACAGGAGCGCACGAGCGGTGGCTTGTGTCAGAGGCCCAAA  
TGAAAAACTCTTCTCTGTCGACACTGGCTCCAAGGAAAAGGGCTGACAAAGAAGAGAACCAAGTCCAGAAGAA  
GTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCTCGAGAACACATCCAAAGTCCCTGCCCCAAAGA  
CGTCTTCGCCCACCAAGTCCCCAACGCCAAGAAGCTCAGGCGGAAGGAGCAGCTATGGGAGAAAGCTGGCCAAGCA  
GGGCGAGCTGCCCGGAGGTGCGCAGGGCCAGGCCCGGCTCCTCAACCTTCTGCAACAAGGGCCAAGCCCGG  
GCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGGCTCAGACAACCCCTTGACAGGCCGTTGGTTGG  
CCAGGATGAGTTTTCTTGGAGCAGACCAAGAAGAAAGGAGTGAAGCGGCCAGCACGCCCTGCACACCAAGCCGTC  
CCAGGCGCCCGCTGGAGGTGGCGCTGCCGAGCTTCCTACAA TCCATCCTTTGAAGACCACCAAGCCCTGCT  
CTCAGCGGCCACGAGGTGGAGTTGACGCGGCAGAAGGAGGCGGAGAAGCTGGAGCGGCAGCTGGCCCTGCCCGC  
CACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTGCGAGGGGCTGCTGGAGGAGTCGGATGGTGA  
GGGGGAGCCAGGCCAGGGCGAGGGGCCGAGGCTGGGGATGCCGAGGCTGTGCCACGCCCGCCCGCTGGCCAC  
CACAGAGAAGAAGACGGAGCAGCAGCGCGCGGGGAGAAGGCTGTGCACAGGCTGCGGGTACAGCAGGCCGCGT  
GCGGGCCGCCCGCTCCGCCACAGGAGCTGTTCGGGCTGCGCGGGATCAAGGCCAGGTGGCCCTGAGGCTGGC  
GGAGCTGGCGCGCGCGGAGGCGGCGGCGAGGCTGAGGCTGACAAGCCCCGAAGGCTGGGACG  
GCTCAAGTACCAGGCACCTGACATCGACGTGACGTGAGCTCGGAGCTGACAGACTCGCTCAGGACCCTGAAGCC  
CGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCCAGAGGAGGAATATGATCGAGCCTCGAGAGAGAGCCAA  
GTTCAAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTTCCGTGAGATCCAGTTGTAGCTGCCATCAGA  
TGCCGAGACTCGCCCTTCAATAAAAAATCTCTTCTAGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 959**

MAAGGSGVGGKRSSKSDADSGFLGLRPTSVDPALRRRRRGPRNKKRGWRRLAQEPLGLEVDQFLEDVRLQERTSG  
GLLSEAPNEKLFFVDTGSKEGLTKKRTKVQKKSLLKKPLRVDLILENTSKVPAPKDVLAHQVPNAKKLRRKEQ  
LWEKLAQGGELPREVRRQAARLLNPSATRAKPGQDIVERPFYDLWASDNPLDRPLVGQDEFFLEQTKKKGVKRP  
ARLHTKPSQAPAVEVAPAGASYNPSFEDHQTLLSAAHEVELQRQKEAEKLERQLALPATEQAATQESTFOELCEG  
LLEESDGEPEGQGEPEAGDAEVCPTPARLATTEKKTEQQRREKAVHRLRVQQAALRAARLRHQELFRLRGIK  
AQVALRLAELARRRRRRQARREAEADKPRRLGRLKYQAPDIDVQLSSELTDSLRTLKPEGNILRDRFKSFQRRNM  
IEPRERAKFKRKYKVKLVEKRAFREIQL

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FIGURE 960

GGGCTCTCTCCTTGTCTAGTCGGCGCCGCGTGGGGCTGGTGGCTCTGTGGCAGCGGGCGGCGGAGCTCCGGCA  
CTATGAGCGGCTTCAGCACCGAGGAGCGCGCGCGCCCTTCTCCCTGGAGTACCGAGTCTTCTCTCAAAAATGAGA  
AAGGACAATATATATCTCCATTTTCATGATATTCCAATTTATGCAGATAAGGATGTGTTTACATGGTAGTTGAAG  
TACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCCTTTAAACCCCTATTAACAAGATGTGAAAA  
AAGGAAAACCTTCGCTATGTTGCGAATTTGTTCCCGTATAAAGGATATATCTGGAACCTATGGTGCCATCCCTCAGA  
CTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAATGACCCAATTGATGTGTGTGAAA  
TTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTTCTAGGCATATTGGCTATGATTGACGAAG  
GGGAAACCGACTGGAAGTCATTGCCATTAATGTGGATGATCCTGATGCAGCCAATTATAATGATATCAATGATG  
TCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGTGGACTGGTTTAGAAGGTATAAGGTTCTCTGATGGAAAC  
CAGAAAATGAGTTTGCCTTTAATGCAGAATTTAAAGATAAGGACTTTGCCATTGATATTATTAAGCACTCATG  
ACCATTTGGAAGCATTAGTGACTAAGAAAACGAATGGAAGGAATCAGTTGCATGAATACAACCTTTGCTCTGAGA  
GCCCCCTCAAGTGTGATCCTGATGCTGCCAGAGCCATTTGGATGCTTTACCACCACCCTGTGAATCTGCCTGCA  
CAGTACCAACAGACGTGGATAAGTGGTCCATCACCAGAAAACTAATGAGATTTCTCTGGAATACAAGCTGATA  
TTGCTACATCGTGTTCATCTGGATGTATTAGAAGTAAAAGTAGTAGCTTTTCAAAGCTTTAAATTTGTAGAACTC  
ATCTAACTAAAGTAAATTTCTGCTGTGACTAATCCAATATATCTCAGAATGTTATCCATCTAAAGCATTTTTCATAT  
CTCAACTAAGATAACCTTTTAGCATGCTTAAATATCAAAGCAGTTGTCAATTGGAAGTCACTGTGGAATAGATG  
TGCAAGGGAGCACATATTGGATGTATATGTTACCATATGTTAGGAAATAAAATTTATTTTGCTGAAAAA  
AAAAAA

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**FIGURE 961**

MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPIYADKDVFHMVVEVPRWSNAKMEIATKDPLNPIKQDVKK  
GKLRYVANLFPYKGYIWNYGAIPTWEDPGHNDKHTGCCGDNDPIDVCEIGSKVCARGEIIGVKVLGILAMIDEG  
ETDQKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRRYKVPDGKPENEFANAEFKDKDFAIDIIKSTHD  
HWKALVTKKTNGKGISCMNTTLESFPFKCDPDAARAIVDALPPPCESACTVPTDVKWFHHQKN

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**FIGURE 962**

AGACGGGCTGCAAGAGGGAGCGCGCCGACGCGGACCGCTTCCCTGCAGTGCCTCCGAGTCCCGGGCCCGCGCCG  
CGCCGCCCGGCTCCGCTCGCGGCCCTCTGTCTGCAGGCGTGCCCCGGCGCGCGGAGAGCGCTCTCGGCCGA  
GGAGGCTGGGAAACGCGAGCGCAGGCGGCGAGAGAGCGCTCAACGCCGTCCCTTTGCCACCGCCCTTTTCTTGCC  
TCGCGCCGCTGTGCATTCTCTCTCTTTTCTTTGTTTTTTTGGCCCTCGCGGGTGTGGGCATTGTTGGTTAGCA  
AAAGTGCAGCCTCAAGATGGCTGATGGCAACGAGGATCTGCGGGCTGACGACTTGCTGGGCCAGCCTTCGAGAG  
CTATGAGTCCATGGAGCTTGCTGCCCGCTGAGCGCAGCGGCCACGTAGCCGTACGCGACGGGCCACATGTT  
CGTCTGGGGCGGCTACAAGAGTAATCAAGTCAGAGGATTATATGACTTTTATCTGCCTAGAGAAGAATAATGGAT  
CTACAACATGGAGACTGGAAGATGGAAAAAATCAACACTGAAGGTGATGTTCTCTCTATGTGTCAGGAAGCTG  
TGCTGTGTGTAGACAGGGTGCTGTACTTGTGTTGGAGGACCACTTCAAGAGGCAATACCAATAAGTTCTACAT  
GCTGGATTCAAGGTCTACAGACAGAGTGTTACAGTGGGAAAGAATTGATTGCCAAGGAATTCCTCCATCATCAA  
GGACAAACTTGGTGCTGGGTATATAAAAAACAAGTTAATATTTTTTGGAGGGTATGGATATTTGCCGTAAGATAA  
AGTATTGGGAACTTTTGAATTCGATGAAACATCTTTTTTGAATTCAGTCAATCAAGAGGATGGAATGATCATGT  
ACATATTTTAGATACTGAAACATTTACCTGGAGCCAGCCTATAACTACTGGTAAAGCACCTTCACCTCGTGCTGC  
CCATGCCTGTGCAACTGTGCGAAATAGAGGCTTCGTGTTGGAGGCAAGTATCGAGATGCTAGAATGAATGATCT  
TCACTATCTTAATCTGGATACATGGGAGTGAATGAATTAATCCACAAGGCATATGCCAGTTGGTCGATCTTG  
GCACTCACTAACACCAAGTTTCTTCAGATCATTTTTCTCTTTGGAGGATTTACCACTGATAAACAGCCACTAAG  
TGATGCCTGGACTTACTGCATCAGTAAAAATGAATGGATACAATTTAATCATCCATATACCGAAAAACCAAGGTT  
ATGGCACACAGCTTGTGCCAGCATGAAGGAGAAGTAATTTGTTTTGGTGGATGTGCCAACACTTGCTGTGCCA  
TCACAGAGCTGCACACAGTAATGAAATACTAATATTTTTCAGTTCAACCAAAATCCTTGTACGGCTAAGCTTAGA  
AGCAGTCATTTGCTTTAAGAAATGTTAGCCAACTCATGGAACTGCCTTCCAAAACTTACTTCACAGTGTTAA  
TCAGAGGTTTGGTAGTAACAACACTTCTGGATCTTAAGGCTTCATAAAATATGCCTATGATCACCTTGCAATGGAC  
AGCAATCCTGTAACATCACAGAGTGGCATCATTTGTATAATATATGCATTGTTGTAGTTTGCACCTGTTGGTT  
TTAATGTGCATGTAATGGCCTAGAGAACCTATTTTGTGTCTAAAGTTTACAATAAATGTATTTAACACC

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**FIGURE 963**

MADGNEDLRADDLPGPAFESYESMELACPAERSGHVAVSDGRHMFVWGGYKSNQVRGLYDFYLPREELWIYNMET  
GRWKKINTEGDVPPSMGSCAVCVDRVLYLFGGHHSRGNTNKFYMLDSRSTDRVLQWERIDCQGIPSSKDKLGV  
WVYKNKLIFGGYGYLPEDKVLGTFEFDETSFWNSSHPRGWNDHVHILDTETFTWSQPITTGKAPSPRAAHACAT  
VGNRGFVFGGRYRDARMNDLHYLNLDWEWNELIPQGICPVGRSWHSLTPVSSDHLFLFGGFTTDKQPLSDAWTY  
CISKNEWIQFNHPYTEKPRLWHTACASDEGEVIVFGGCANNLLVHHRAAHSNEILIFSVQPKSLVRLSLEAVICF  
KEMLANSWNCLPKHLLHSVNQRFGSNNTSGS



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**FIGURE 964**

CGGCGACTGACCGTGGTCTGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTCGCTGTGGGTCGCGAAGC  
AGAGCCCGGGACGTGCGCGCTTGGTGACGATCCTGAAGGGGAGCTCCGAGGGGCGGGGTCGCCAGGGCTGCTG  
CGGCCATTCCCGGAGCCCGCGCGGGGCCCGCGAGATACTGGTTTAGGCCGTCCGAGGGCTCCGGGCGCACCCGG  
TGGCCGCTGCTGCAGCGAGGGAGCGCGCGCGCGGGGCTCGGAGACAGCGTTTCTCCGGAAGTCTTCTCTCG  
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTGGGACCA**ATC**CGCCCTGC  
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGGCGGTGCGGACAAGCGCCTGCG  
TGACAACCATGAGTGGAAAAAATAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAAATTCAAACGA  
CTGTAGAGACCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG  
GCCCTTCAATTTAGAAGAGATTAAAGGATCTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTCACCTCGTT  
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA  
CTCCGAGAAGAAGTACTTTGGCAGAAGCCTGGAACCTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAAATT  
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT  
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC  
TAAGCAAGACCAGCAGCTGCAAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCCAAGCAGGAAGTCTGGCTGGC  
AAATGGGGCGCGGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCAGTCTTCTATCCCCCACCTAAAAAGAC  
CAAGCAT**TGAT**GGCCCAAGTTTTGGAAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAAACTGCAG

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**FIGURE 965**

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC  
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLEYRELDLNSV  
LLKLGIKPSINYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLTKDQQLQNCTEPGEQPSPKQE  
VWLANGAAESRGLRVCEDGPVFYPPPKKTKH

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**FIGURE 966**

CGGCGACTGACCGTGGTCGTGGGCGGACGGCGGCTTGACAGCTGGAGAGCTGGGGTCGCTGTGGGTCGCGAAGC  
AGAGCCCGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCGGGTCGCCAGGGCTGCTG  
CGGCCATTCCCGGAGCCCGGCGCGGGGCCCGCAGATACTGGTTAGGCCGTCCCAGGGCTCCGGGCGCACCCGG  
TGGCCGCTGCTGCAGCGGAGGGAGCGCGCGCGCGGGGGCTCGGAGACAGCGTTTCTCCGGAAGTCTTCTCTG  
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTCCGACCA**ATG**CGCCCTGC  
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGCGGTGCGGCACAAGCGCCTGCG  
TGACAACCATGAGTGGAAAAAATAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAAATTCAAAACGA  
CTGTAGAGACCCCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG  
GCCCTTCAATTAGAAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTCACCTCGTT  
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA  
CTCCCAAGAAGTACTTTGGCAGAAGCCTGGAACCTCTACAGGGAGCTGGACCTCAACAGTGTGCTTTAAAAAT  
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT  
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAAGTGTGCCTCAC  
TAAGCAAGACCAGCAGCTGCAAAACTGCACCGAGCCGGGGAGCAGCCGTCCCCCAAGCAGGAAGTCTGGCTGGC  
AAATGGGGCCCGCAGAGCCGGGCTCTGAGAGTCTGTGAAGATGGCCAGTCTTCTATCCCCACCTAAAAAGAC  
CAAGCAT**TGAT**GCCCAAGTTTGGAAATATTCTGTTTAAAAAGCAAGAGAAATTCACAAACTGCAG

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**FIGURE 967**

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC  
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLEYRELDLNSV  
LLKLGIKPSINYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIQIQLCLTKQDQQLQNCTEPGEQPSPKQE  
VWLANGAAESRGLRVCEDGPVFYPPPKKTKH

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**FIGURE 968**

GAATTCGAGCTTTTTATTCTTAAGAGAGAAAAATCAGTAACGGGAGAAAGCAGGAGGATGCCAGAAGAAATTC  
ATCCCTTGCTCTCGCCCTACTCTTTCTGGTGTAGATCGAGCTACCCCTCTAAAAGCAGTTTAGAGTGGTAAAAA  
AAAAAAAAACACACCAACCGCTCGCAGCCACAAAAGGGATGAAATTTCTTCTGGACATCCTCCTGCTTCTCCCGT  
TACTGATCGTCTGCTCCCTAGATCCTTCGTGAAGCTTTTTATTCTTAAGAGGAGAAAAATCAGTCACCGGCGAAA  
TCGTGCTGATTACAGGAGCTGGGCATGGAATTGGGAGACTGACTGCCTATGAATTTGCTAAACTTAAAGCAAGC  
TGGTTCTCTGGGATATAAATAAGCATGGACTGGAGGAACAGCTGCCAAATGCAAGGGACTGGGTGCCAAGGTTT  
ATACCTTTGTGGTAGACTGCAGCAACCGAGAAGATATTTACAGCTCTGCAAAGAAGGTGAAGGCAGAAATGGAG  
ATGTTAGTATTTTAGTAAATAATGCTGGTGTAGTCTATACATCAGATTTGTTTGCTACACAAGATCCTCAGATTG  
AAAAGACTTTTGAAGTTAATGTACTTGCACATTTCTGGACTACAAAGGCATTTCTTCTGCAATGACGAAGAATA  
ACCATGGCCATATTGTCACTGTGGCTTCGGCAGCTGGACATGTCTCGGTCCCTTCTTACTGGCTTACTGTTCAA  
GCAAGTTTGCTGCTGTGGATTTCATAAAACTTTGACAGATGAACTGGCTGCCTTACAATAACTGGAGTCAAAA  
CAACATGTCTGTCTCTAATTTCTGTAACACTGGCTTCATCAAAAATCCAAGTACAAGTTTGGGACCCACTCTGG  
AACCCGAGGAAGTGGTAAACAGGCTGATGCATGGGATTCTGACTGAGCAGAAGATGATTTTTATCCATCTTCTA  
TAGCTTTTTTAACAACATTGGAAAGGATCCTTCCTGAGCGTTTCTGGCAGTTTTAAACGAAAAATCAGTGTTA  
AGTTTGATGCAGTTATTGGATATAAAATGAAAGCGCAATAAGCACCTAGTTTTCTGAAAACAGTATTACCAGGTT  
TAGGTTGATGTCTATCTAATAGTGCAGAAATTTAATGTTTGAACCTCTGTTTTTCTAATTATCCCCATTCTCTC  
AATATCATTTTTTGAGGCTTTGGCAGTCTTCATTACTACCACTTGTTCTTTAGCCAAAAGCTGATTACATATGAT  
ATAACAGAGAAATACCTTTAGAGGTGACTTTAAGGAAAATGAAGAAAAAGAACCAAAATGACTTTTATTAAATA  
ATTTCCAAGATTATTGTGGCTCACCTGAAGGCTTTGCAAAATTTGTACCATAACCGTTTATTTAACATATATTT  
TTATTTTTGATTGCACCTTAAATTTTGATAATTTGTGTTCTTTTTCTGTTCTACATAAAATCAGAACTTCAAG  
CTCTCAAATAAAATGAAGGACTATATCTAGTGGTATTTTCAATGAATATCATGAACCTCTCAATGGGTAGGTTT  
CATCTACCCATTGCCACTCTGTTTCTGAGAGATACCTCACATTCCAATGCCAAACATTTCTGCACAGGGAAGC  
TAGAGGTGGATACAGTGTTCAGATATAAAAGCATCACTGGGGGATTTAAGGAGAATTGAGAGAATGTACCCAC  
AAATGGCAGCAATAATAATGGATCACACTTAACG

**FIGURE 969**

MKFLLDILLLLPLLIVCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTAYEFAKLKSCLVLDINKHGLEE  
TAAKCKGLGAKVHTFVVDCSNREDIYSSAKVKAEIGDVSILVNNAGVVYTSDFATQDPQIEKTFEVNVLAHFW  
TTKAFLPAMTKNNHGHIVTASAAAGHVSVPFLLAYCSSKFAAVGFHKTLTDELAALQITGVKTTCLCPNFVNTGF  
IKNPSTSLGPTLEPEEVNRLMHGILTEQKMIFIPSSIAFLTTLERILPERFLAVLKRKISVKFDAVIGYKMQ

**FIGURE 970**

GGCAGCAGGGGTGAGCGCTCGCAAGAGGACGGCAGAGGCCCGGCAGCTCGGAGCTCCGGGACCTTGTGGCGCATCA  
GGACCGCGCTCTGCCCTTCGGGGAGCCAGCAGCGCCGCGCCGCTCTGCCTCTCGTGTGATGACCTCTCTCGC  
CGCTCGCGGAGCGGCGCTGGGAGCGCTGTGGGGCAGGACGGCGGAGAGCTGTGCTGTCTCCCGCGCCGCGCG  
CGGCTGGAACGAGAGAGGCCGAGCCAGCGCGGCCCTCTTATGCTGGGAGGATGCTGGAGAGTAGCGCGCTGCA  
AAGCGCTCAAGGAGGCGCTGTGGAGAGGCGAGCGAGCGGTTGTTCAGCTCTGGAAAGAAAAGTGTGCATCA  
TCACGAGGAGAGGGCTGCTGCTTATCCCGCCAAGACGCTCAACACACGAGCAGCAAGCAACGACGAGCAGCG  
AGCAGCAACAACAGCCCGGGCAGGGGCGCGCCAGCGCTTCCAACCACTGGCTGGCCCGCTGCGCAGCCTCGAGC  
CGCGGCTCAAGCTCAAGGAATGCACTTCTCCAAACATGAAGACCGTGGACTGTGTGGAGCGCAAGGCAAGTACA  
TGATCTTCACTGTGGTAGTGACGAGGCGAGAGAGATGACTTTCGTTCCGCGCCAGAACACAGGCTGGAACCGCG  
AGATACCGCTGCAGATGCTGACAGTACAAGAAATCGTCAGGCCACTCTCGGCGGTCAAATCCACGCGCGAAGCAG  
AGCACTTGGTCCAGGAGCAGTCCCTCTCGAGCCGCGAGCCGACGCGAGCTTCAGCCGCCAACCCGACCTCAGC  
CTCAGCGCAACCCAGCGCCCAATCAACACCCAGCCTCAGCCCAACCAAGCTCAGCCGCCAGCAGCTCCACC  
CGTATCCGCACTCCATCTCATCTCACATCCACCTCTCATCTCATCGCACCAACCTCACCGCCACCGCATCCGC  
ACCAAAATCCGCAACCCACCCACAGCCGCACTCGACCGGCAACGGGCAACGGCTTCTCCGACAGCACTCCAATC  
CTGCCGTGAAGGGGCGAGCTCCGGGCAAGACAGGTTTTGAGGACTTGAGGAAGTGGACGAGCACATTTCTATT  
GTCTTCACTTGATGATCAAAAGCAAAACAGTCTCTCGCCCGCCAGCCAGCATCAAGTAGTTGGACATCAACCTACTG  
AAACTTTCGATCTTCTTAGTTTTCGTGATATTTTATCATCAGTAGGAGAAACGATTTTCGATGACAGAACT  
TTTATTATGAACTTTGAAAGGATCGTCTTGATGTGGTAATTTCTAGGAGCGATGATGTACTGTAATTTTATT  
TTAATGATTTTATGATTTATGATTTTATAGTTTTTTAAATGGTGTCTCAAGACTCTGTAATGTAGACCC  
ATTTTCCAAAAGGAGAACTTTATTTTCAAAAGCTAATCCGTAGTAAATCTTCAATTTGGAGATAAAAAAGGCG  
GGTGGAGGGGAAAAACATTAAAGAAATTTATTCATTTTCTCGAGTACTTTCAGAAAGCTGCACACTTTCATTGTG  
TGCCAGCTGGTTGAAATTTAAATCTGATATTTAAAAAAAATAAAAAAAAATAAAAAAAAATAAAAAAAA  
AAAAAATAAAAAAAA





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FIGURE 972

CCCGTATCCGCAATCCACATCCACACTCTCATCTCACTCGACCCACACCCCTACCCGCGACCCGCATCC  
GCACCAATATCCGCAACCCACACCCACAGCCGCACTCGCAGCCGACGGGCACCGCTTCTCCGCAGCACTCCAA  
CTCTGCGCTGAAGGGGCGAGCTCCCGGGCAAGACAGGTTTGGAGGACTTGAGGAAGTGGGACGAGACATTTCTA  
TTGTCTTCATCTGGATCTAAAGCAAAACAGTCTCTCCGCCCGCACAGATCAAGTAGTTTGGACGATCCCTCAC  
TGAACAACCTTGGCGATTCTTCTTAGTTTCTGCATACCTTTTCATCACCAGTACGAGAAACGATTTCGAGTCAAGA  
AGACTTTTATTTATGAACCTTTGAAAGGATCGTCTTGATGGTGAAATTTCTAGGAGCGATGATGACTGTATTAAT  
TTATTTTAAATGTATTTTGATTATGATTATTTATAGTTTTTTTAAATGCTTGTTCTAAGACATTTCTGAAATG  
AGACCATTTTCCAAAAAGGAAACTTTATTTTCAAAAACCTAATCCGTAGTAATTCCTAATCTTGGAGAATAAAAA  
AGGGCGGTGGAGGGGAAAAACATTAAAGATTTATTCATTATTTCTCGAGTACTTTCAGAAAGCTGCACACTTTTCA  
TGTTGTGCCAGCTTGGTTGAAATTAACACTCGATATTACTTTTTTGGAGGATTTTATTTTGTGTTTTTGCCTAAA  
CACTATAGTTTGTCTAGAAGTTAAAAAGCTAAAGTTAAAAATGGTGTAATTTATGAAATCTAACAACCTCAAGAT  
AGTTTCTAAAGGAAATCAGTAGTTAAGGATACCTGATTCAAAATATTTAAAGCATAACTTAACCTGATGGTAGG  
ATGATTGTATCTTGAATATGGTAGGGCCACATCTATTGTAGGAAACCTTGCTTTTATCATCTGTGTGTAAG  
GGCTTAATAAGGAGAAGAGGCTTTTGACTGATTTGTGAGTATAAATGCATTGTGCTGTTCAITTCAAAAATCTGT  
TGGGAGGAAAAAGTAGTACATTTAACTTGTAAGAGAATATTGTACTCTGCGGAGCTGCAGGACCTTTCTCG  
AGAGCTTTGCACACTTGACTTTGAACCACTTTTCTGTAGCCCTTACTTTTGTGTTAGAGCACACTGAAAAATCTC  
GTTGTTTAAAGTACAATTTGTAATATTCAAGAGTCTAGGAGCTATAACTTTGTTTTCATACTGAAAAATGATG  
TTGATCAGAGAAACCACTGTTTTCCTTTTCTGTTGAGAAATGGAGGATCTGTTTGTGCTGTAGGTAA  
GCTAACTCAGAAATGAAAGAAAGACTGGATAAACACCCGGATTTTCAGTAAGAAACACCCCGAGTCTTGCTCT  
AGAAGCCACTTGTGAGGAGTCTGTTGGGGGAAAAAGAGGATATGCTTTTAAAGGTAGAACAACCTCTCTCTG  
TGTTAAATCAAAAGGATGTTCAAAATCCACGAGACAGATGCTACTTGGGTTTAAATGGAGCCATAGATGATACA  
AAGTCTCTTGGGGCTGAAAACTACTTCCATTTGTCATGGCTTTACTAAGTGGTTTCTGTTTTCATTATCTTTT  
TCACAGAAAGTCTTGCTCAGTATTTTCCAGCATTTAAATGAAACGGTCAGTATTAGACCACGCTAGGTATG  
TAGTCAAGAAATAAAAAATAGAATTACATGCTACAGATGCTTTTATCTCCTTCCATCTAGAAGGAGTTCCAAG  
TCAAATTACTTTTGTAGTCAATAGTTAAATGACATTTTGAGATCATAACTCATATCCAAAAAGTTGCGAGGAAAA  
TTAAATAGCTTTCCCTTATTAAGCTAATGGCAACAAAACTTAAGTGGACCCCACTTCCAGTGGTTGTTTAGG  
TTGCAGTTGTGAAAAATATGCTGCCAACATTTAAAAACTTGTTTCATATGTATATATGATACACATATATGAATA  
TGATGTATATATACATATATGAGAACATGTGTACACATATGAATATGTATATATGTATATGTATGTATAT  
ATGTATATGAAATGAGAGCCACATCTAAAGATTTCTTAAATCAAGTTTGGTTCAGCTTCCTTAGAAGTGTGGCTG  
TACTTTTTTGAGGATACCTCATAGTACTATATTTTTAATGATGCAAAATCAATAGCTCCAAATGAACCAAGT  
TTTTTCCCAATGGAGGATTTTTTTTTAATCTTGACTAAAAAATAAATCCATACCAAAATTTTTTCAAAAT  
AAGATTGATGTAGGTTTTTAAAAAAGGCATTTGTATGTTGTAGCTTACATATGGGGCTAGGTAATTTCAATGCTT  
AAAAAGATGCGCCTAGGCTCCCTCTTGGTGGCTGGATTCTTTTTCTCGCCCGTGGTGCCATGSGTTTTTAATA  
GGGCCACCGGAATCATGTTCTTTTTTTTTTTTTTGGAGATGGAGCTCGCCCTGTGACCCAGGCTGGAG  
TGCAGTGGCACGATCTCGGCTCGGCTGCAACCTCTGCCTTCTGAGTTCACGCACTCTCCTGTGTGTCAGCTCTGTA  
GTAGCTGGGACTACAGGTGAATGCCACCACCGCCGGCTGATTTTGTATTTTATGAGAGATGGGGTTTCAACAT  
AGTGGTCAGGCTGTTCTGCAACTCTTGACCTCAGGTGATCCACCTGCTTGGCCTCCCAAGTGTGAGGATTACA  
GGTGTAGGCCACCACACCCGGCCCCAGTAGTAATGGTTTTCTTGACTTCTGTAGGCCCTGTGCTTAGCTCTGCTGT  
GATATTTATGTGACCTTTATCATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATAGA  
AGTAGAATGGCTTTTATGTTTGTACACCTTTGAAATATTATTAATAATTTTTCCAGAGCAAAAAAGCAAAAC  
GCTCAATAAGACTAAACAAACAAAAATAAATGTACATTTAATGTCCAGTGGCTTATTTCTACCTGTGAAG  
AAAATGATACAAACCCCTTAAGATATTTTGAAGCCTGACAAATCAGCTTCATGAAAAAGGTAATAAATGCATT  
TTTCAACCGAAAGGCGAGATCCAATAGAAGACCCGCTCTTAAATAAACATAAAATGTAAAAAGTTGAAAAAA

AA

GTTCGCGGGTGGTTGTTGCTCTCGGGGCGGTGGGAGTAGGCTGGACCTGGACTCACGGCTGCTTGAGAGCGTCC  
GCCATGAGGAGAAAGTAGGCTGCTGGCGGAGGAGTCCATAGTAGTGTCTGCAGAAAGCCCTAAATCACCTTCCGGGAA  
ATATGGGAGCTAATTTGGGATTCCAGAGGACCAGCGGTTACAAAGAAGCTGAGGTGGTAAAGAACATATCAAGGAA  
CTCCTGGATATGATGATTGCTGAAGAGGAAAGCCCTGAAGGAAAGACTCATCAAAGCATATCCGCTCTGTAGAAA  
GAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTCAGGAAGAGGAGACGACCACTCTTGCAACTA  
GAAAAAGATTTCGCGACCCCAAGTGGAAATTGATGCGAAAAACAGAAAAAGGAGAGAAAAACGGAAGCTGAAGCTACTT  
CAAGAGCAAGATCAAGAAGCTGTGCGAAATTTCTTTGTATGCCCACTATGATATTGCAGTGGCTCTAGCTGCCACG  
TTAGAAGAGCTGAACCAGTTCAGGCAACATGTGACAACCTTTGAGGGAACAAAGGCTTCTAGGCGTGAGGAGTTT  
GTCAGTATAAAGAGACAGATCATCTGTGTATGGAAGAATTAGACCACACCCAGACACAAGCTTTGAAAAGAGAT  
GTGGTGTGTGAAGAGCAAGATGCGCTTTTGTGCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAG  
CTGGAATGCGAAAAATCACAAAATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGGGACAGG  
TTGCAAAATCCTGAAGAAGAAAGAGAGCTGTGGCCACCATATTGTCTGGGTCAAAGGCCAAGGCTCCGGAAAGCG  
CTGCAATTAGAAGTGGATCGGTTGGAAGAACTGAAAAATGCAAAACATGAAGAAAGTGATTGAGGCAATTCGAGTG  
GAGCTGGTTCACTACTGGGACAGTGCCTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCTTTCTGTGCTGAG  
GACTACACAGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAAACTACTATGAAGTTCAACAG  
GAATCTCTTGAAGGTTGCGAAGTGTGCGAAGAAACCTGGAGGCTTTTCTAGAGTTTGAGAGAAAGGCTTCAGAT  
CCAAATCGATTTACAAACCGAGGAGGAAATCTTCTAAAAGAAAGAAAAACACAGAGCCAAGCTCCAGAAAAATGCTG  
CCCAAGCTGGAAGAAGAGTTGAAGGCACGAATTGAATTGTGGGAACAGGAACATTCAAAGGCATTTATGGTGAAT  
GGGCAGAAATTCATGGAGTATGTGGCAGAACAAATGGGAGATGCATCGATTGGAGAAAGAGGACCAAGCAGGAA  
AGACAACCTGAAGAAACAAAAACAGACAGAGACAGAGATGCTGTATGGCAGCGCTCCTCGAACCTTAGCAAGCGG  
CGAGGAGTGGCTCCCAATACACCGGGCAAGCACGTAAGCTGAACACTACCAACATGTCCAATGTACGGCCAAT  
AGTAGCATTGCGCCTATCTTTGGAGGGACAGTCTACCACCTCCCCGTGTCTCGACTTCCCTCTTCTGCGACGAAG  
CCAGTCGCTGCTTCCACCTGTTGAGGGAAGAAAAACCCCGTACTGGCAGGCTAGGAGGCCAACAGGAGAACCTG  
GAGCTCAACGGGAGCATCTGATGGTGGGTACCCGTGCTCGGCCCCCTCCAGCGCAACTTCAGCATTAATCTT  
GTTGCCAGCACCTATTCTGAGTTTGCGAAGGATCCGTCCTCTCTGACAGTTCCACTGTTGGGCTTCAGCGAGAA  
CTTTCAAAGGCTTCCAAATCTGATGCTACTTCTGGAATCTCAATTCAACCAACATCCAGTCTCTGAGAAAGCCCTG  
ATCAGTCAACCAAGCTGTGGCTTCTGTGCTAGACTGGACCTAATATATGCGGGGTGACTTTAGTTTTCTTCAG  
CTTAGGAGTGCTTGAACCTTTGGCCAGGTTCCATGACCATGGGCCCTAACTTAAAGATGTGAATGAGTGTACAGT  
TGAAGGCCATCATAGGTTTAGTGGTCTTAGGAGACTTGGTTTTGACTTATATACATGAAAAGTTTATGGCAGA  
AGTGCAAAATTTAGCATATGCGGGCTGACTTCTCTACCACATAATTTCAATTTGCTGGAAGCATGATCAAAGCTTGT  
TTATTTTACCACCTGATGGAATAATGACTATGCCCATCCCTGGGGGTAAATTTGGCATGTATACCTGTAACT  
AGTAATTAACACTCTTTTTTTAGGCATGTTCAATTAATGCTGTAGCTATCATAGCTTTGCTCTTACCTGAGC  
CTTGTCCCAACACACAGGACAGCCTTCTCTCTGAAGAGAATGCTTTGTGTGTCGGAAGTTGAGATGGCCTGCC  
CTACTGGCAAGAGGTGACAGGAAGGCTGGGAGCAGCTTTGTTAAATGTGTTCAGTTCTGTTCACAGTGCATT  
GCCCTTTTGGGGGTATGCAATGTATGAACACACATGCTGTGCGGAACGCTTTGCTGGCGGTTGTCCTTCCGCTC  
TCATCTCCCCATTCTGTGCTACTTTGCGGTGAGTTCTCTACCCCGCAGTTGCGAGCCAGATTGGGAGTCTG  
TTTGTTCGAATGGGTTGAGTGTCTTTGTGCTGGAGATCTGGAACCTTGACATGTCACTACTGGGGAGGTGTTT  
CTGCTTACGCTTCCACGATGAGCGCCCTCTTACCTATCCTCTCAACTACTCTTCTTGAAGCACTATATT  
TATCTTCCGCTGTCTGCTGAGCAGTACTACTGTCAACATAGTGTAAATGGTTCTCAAAGCTTACCAGTGTG  
GACTTGGTGTAGCCACGCTGTTTACCTCATACAGTACGTGCTGTTTTAAAAATATCAATTATCTTAAAAA  
TAAATTAATTCGTATCTTACATTTCTCAAAAAA

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**FIGURE 974**

MRRSEVLAEESIVCLQKALNHLREIWELIGIPEDQRLQORTEVVKKHIKELDDMMIAEEESLKERLIKSIISVCQKE  
LNTLCSELHVPEPFQEEGETTILQLEKDLRTQVELMRKQKKERKQELKLLQEQQDELCEILCMPHYDIDSASVPSL  
EELNQFRQHVTTTLRETkasrreefvsIKRQIILCMEELDHTPDTSFERDVVCEDEDAFCLSLENIATLQKLLRQL  
EMQKSQNEAVCEGLRTQIRELWDRQLQIPeeereavATIMSGSKAKVRKALQLEVDRLLEELKMqNMKKVIEAIRVE  
LVQYWDQCFYSQEQRQAFAPFCAEDYTESLLQLHDAEIVRLKNYEVHKELFEGVQKWEETWRLFLFERKASDP  
NRFTNRGGNLLKEEKQRAKLQKMLPKLEELKARIELWEQEHSKAFMVNGQKFMEYVAEQWEMHRLERAKQER  
QLKNKKQTETEMLYGSAPRTPSKRRGLAPNTPGKARKLNTTMSNATANSSIRPIFGGTVYHSPVSRLEPPSGSKP  
VAASTCSGKKTPRTGRHGANKENLELNGSILSGGYPGSAPLQRNFSINSVASTYSEFAKDPSSLSDSSTVGLQREL  
SKASKSDATSGILNSTNIQS

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**FIGURE 975**

GCGGATCATCCGCTTCCGGAGTCGAGGTTTTTCGGGCTTGTAACCGCTTGGCGGTGCGGCCCTGGTGTGCGGCTTGCA  
GTTCTTTCTGTGTTTGTCTCTGCCCTGCCAAGGCCGTAGAGCTGGTGCGTGCGGGTAGCGGGGGCTCTCCGAGGA  
GCGCGGCACGCCGCGCACCATGGTCCACCTCACTACTCTCCTCTGCAAGGCCTACCGTGGGGGCCACTTAACCAT  
CCGCCTTGCCCTGGGTGGCTGCACCAATCGGCCGTTCTACCGCATTGTGGCTGCTCACAACAAGTGTCACAGGA  
TGGCCGTTTCGTAGAGCAGCTGGGCTCCTATGATCCATTGCCCAACAGTCATGGAGAAAACTCGTTGCCCTCAA  
CCTAGACAGGATCCGTCATTGGATTGGCTGCGGGGCCACCTCTCTAAGCCTATGAAAAAGCTTCTGGGTCTTGC  
TGGCTTTTTCCCTCTGCATCCTATGATGATCACAATGCTGAGAGACTGCGAAGGAAACGGGCACGTGAAGTCCT  
GTTAGCTTCTCAGAAAAACAGATGCAGAAGCTACAGATACAGAGGCTACAGAAACATAATAGCTGACITTAGTG  
AGCATAGCAGTGGGAACAAGGTCAAGTCCTTTTGAAACACTGCAGCGATCTTAATTTTGTAGATTGGAGTTC  
AATAAATGGAGTATCCTGAAAAAAAAA

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**FIGURE 976**

MVHLTTLLCKAYRGGHLTIRLALGGCTNRPFYRIVAAHNKCPRDGRFVEQLGSYDPLFNHGEKLVALNLDRIRH  
WIGCGAHLSPMEKLLGLAGFFPLHPMMITNAERLRRKRAREVLLASQKTDAEATDTEATET

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**FIGURE 977**GGAGCTCTGGAGCGGGGCTTCGAGCGTGGCTCGTGGGTTTTCCGTGAAGTCGCGGTGCAGCGGTGGGCGGC**ATG**

TCTGTGGCCGGTGGGGAGATTCTGTGGGGACACGGGGGAGAGGACACTGCTGCTCCCGGCCGGTTTCAGCTTCAGC  
CCGGAGCCACGCTCGAGGACATCCGCCGCTCCATGCTGAGTTTGCTGCGGAACGAGACTGGGAACAGTTCCAT  
CAGCCTCGGAATCTCCTCCTGGCCTTGTTGGGGAAGTGGGGGAGCTGGCAGAACTCTTTTCAGTGGAAAAACCGAT  
GGGGAACTTGGCCCCAAGGCTGGTCCCCAGGGAACGGGCAGCCCTTCAAGAGGAGCTTAGTGACGTCCTCATC  
TACCTGGTGGCATTAGCAGCCCGCTGCCGTGTGGATCTGCCGCTAGCAGTGCCTCCAAAAATGGACATCAACCGG  
CGACGCTACCCAGCCCATCTGGCCCGCAGCTCTTCCCGCAAGTATACAGAATTGCCCATGGGGCCATCTCTGAA  
GACCAGGCTGTGGGGCCTGCGGACATTCCCTGTGACTCCACAGGCCAGACCTCAACC**TAGA**AAGATGGCCACAGG  
ACTTGCAACTCAGGGTGGTGTCTGAAGAGCAGAGAGTGGCCTGGCCCTGGAGCCTTTTCTAGTCTTTTCAGAAT  
AGATCATGGGCCTGAGGCCTCCACTTCTTGAGGTCTGAGGCCAGCAGCCTCTAGAAGGTAGCCTCCTGGTGTTT  
GTTCTCCAGTAAAAATGGTTTTGGGGGATAAATTCTAGATTATTCTGGATGGCCAGGGAGGCTCTCTGTCTCAG  
CAGGTGATGACGGGGGTACAGGGGTGCCTCTGAGACCCATTCTCGTGTTCCCTGTTGTACCTTTGCCTGCAG  
GGCAGAGAGATCTGGTTTCTAGCAAATCCCAGTAGGATGTCATGTAAGTTCCTTCCCCCTCTTAGAGATTGAAG  
GCTGTAAGAGTCCAGATGGTGGAGCAGGCTGTCTGGGTTCAAATGCCATCTTTGACACTTGCAAGCTAAATGAC  
ATTACTCAAATTAATCGTTCTGCACTTCAGCTTCCTTGCTATCAATAAAAAAGAATAGTACCTGCCCAAAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 978**

MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQFHQPRNLLALVGEVGEAEELFQWKT  
DGEPPQGWSPRERAAEQEELSDVLIYLVALAARCRVDLP L AVL SKMD INRRYP A H L A R S S S R K Y T E L P H G A I S  
EDQAVGPADIPCDSTGQTST

## FIGURE 979

GAAGGTCAGCGTGTGAAGTAGGCGCTGGCAACGCGGGGTACCTGXTXTATTGAGGAGTAACGGCCCAGCGGAC  
CACCCAGGCTTGAGGCAGCGCGGGAACCACTCGGTTTGCTGCGATACCAATGSAAGGAGCGGGGAAGCGGCAA  
CAAAACCACAGGGGATTGGCCGGCTTTTCGGAGCCGGCGGAGCAGGTTACTCGCACGCGGATTGGCTGGCGT  
CCCGTAACTGGTATGAACCTCTGTCTCCTTATTTAAATGTGGATCCAGTACCTCGTGCAGGATACAGATGA  
GTTTATTTTACCTACCGGAGCTAATAAAACCGGGGCAGATTTGAGCTGGCTTCTTTACGATTGGAGGATGTTG  
CATGACAGGGGCTGCGTTTGGTGCAATGAATGGTCTTCGGCTAGGATTGAAGGAAACCCAGAACATGGCCTGGTC  
CAAACCAAGAAATGTACAGATTTTGAATATGGTGACTAGGCAAGGGGCACTTTGGGCTAATACTCTAGGTTCTCT  
GGCTTTGCTCTATAGTGCAATTTGGTGTTCATTCATTGAGAAAACACGAGGTGCAGAAAGATGACCTTAACACAGTAGC  
AGCTGGAACCATGACAGGCATGTTGTATAAATGTACAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGG  
ACTAACACTTACCAGCCTCTATGCACTATATAATAAATACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACT  
CTGAAGATTTTGCCAACTCATGAATGGAGGACATTCAGTAGTTCATCTAGGATCCTTTTATTAAGGACAGTTTG  
GGAGTTATTCTCTCT



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**FIGURE 980**

MEGGGSGNKTTGGLAGFFGAGGAGYSHADLAGVPLTGMNPLSPYLNVDPRYLQDTDEFILPTGANKTRGRFEL  
AFFTIGGCCMTGAAFGAMNGLRLGLKETQNMASKPRNVQILNMVTRQGALWANTLGSLALLYSAFGVIEKTRG  
AEDDLNTVAAGTMTGMLYKCTGGLRGIARGGLTGLTLTSLYALYNNWEHMKGSLLQQSL

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**FIGURE 981**

GGCGAAGGAGATCAGCAGGACGCTGCGCACAACATGGGCAACCACCTGCGCGCTCTGCCTGCAGAGAGTGAGGAA  
GAAGATGAAATGGAAGTTGAAGACCAGGATAGTAAAGAAGCCAAAAAACCAACATCATAAAATTTTGACACCACT  
CTGCCGACATCACATACATACCTAGGTGCTGATATGGAAGAATTTCATGGCAGGACTTTGCACGATGACGACAGC  
TGTCAGGTGATTCCAGTTCTCCACAAGTGATGATGATCCTGATTCCCGGACAGACATTACCTCTTCAGCTTTTT  
CACCCCTCAAGAAGTCAGTATGGTGGGAATTTAATTCAGAAAGATAGAACCCTTTGCTGTTCTTGTCATACAGCAAT  
GTACAGGAAAGGGAAGCAGATTTTGGAAACAACAGCAGAGATATATGCCTATCGAGAAGAACAGGATTTTGGAAAT  
GAGATAGTGAAAGTGAAAGCAAATTGGAAGACAAAGGTTCAAAGTCCTTGAGCTAAGAACACAGTCAGATGGAATC  
CAGCAAGCTAAAGTGCAAATTTCTCCCGAATGTGTGTTGCCTTCAACCATGTCTGCAGTTCAATTAGAATCCCTC  
AATAAGTGCCAGATATTTCCCTCAAAACCTGTCTCAAGAGAAGACCAATGTTTCATATAAATGGTGGCAGAAATAC  
CAGAAGAGAAAGTTTCATTGTGCAAACTCTAACTTCAATGGCTCGCTGGCTGTATTCCCTTATATGATGCTGAGACC  
TTAATGGACAGAATCAAGAAACAGCTACGTGAATGGGATGAAATCTAAAAGATGATTCTCTTCCCTTCAAAATCCA  
ATAGATTTTCTTACAGAGTAGCTGTCTTGCTTCTTATGATGATGATTGAGAATTCAGCTCCCTTAAATTTGGC  
AGTGCTATCCAGCGACTTCGCTGTGAATTAGACATTATGAATAAATGTACTCCCTTTGCTGTAAACAAATGTCAA  
GAAACAGAAATAACAACCAAAATGAATAATTACGTTTATCCTTATGTGGGCGATGGAGCTTATGTGAATCCCTC  
ATGGATATGTGCATGAGACACTTACTGTGTATAAGGCTTGCAACTTGAATCTGATAGGCCGGCTCTTACAGAAC  
ACAGCTGGTTTCTGGGTATGCCTGGACTGTTGCCAGTGTAAGATCTGTGCAAGCCCATATTGGATGGGAAGTT  
TACGGCCACCAAAAAGACATGTCACTCAAAAATTTTGGGGCTTAACGCGATCTGCTCTGTGGCCACGATCCC  
AGACACTGAAGTGAATAAGTCCAGACAAAGTAATACTTTGCTTGTAACAGATGTGATAGAGATAAAGTTATC  
TAACAAAATGGTTATATTCTAAGATCTGCTTTGGAATTTATTCCTCTGATACATACCTAAGTAAACATAACATT  
AATACCTAAGTAAACATAACATTACTTGAGGGGTGCAAGTTTCTAAGTGAACCTGTATTTGAAACTTTTAAAGTAT  
ACTTTAGGAAACAAGCATGAACGGCAGTCTAGAATACCAGAAACATCTACTTGGGTAGCTTTGGTCCATTATCCT  
GTGGAACTGATATGTCTGGTAGCATGTCTATTGATGGGACATGAAGACATCTTTGGAATGATGAGATTATTC  
TGTTGTTTTAAAAA

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**FIGURE 982**

MGNHLPLLPAESEEEDEMEVEDQOSKEAKKPNIINFDTSLPTSHTYLGADEEFHGRTHDDSCQVIPVLPQVM  
MILIPGQTLPLQLFHPQEVSMVRNLIQKDRTFAVLAYSINVQEREAQFGTTAEIYAYREEQDFGIEIVKVKAIGRQ  
RPFVLELRTQSDGIQQAQVQILPECVLPSTMSAVQLESLNKCQIFPSKPVSREDQCSYKWWQKYQKRKFHCANLT  
SWPRWLYSLYDAETLMDRIKKQLREWDENLKDDSLPSNPIDFSYRVAACLPIDDLVLRQLLKIGSAIQRLRCELD  
IMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMELM

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FIGURE 983

CCCGCGTGCATACGGTTGCCGGCATGCACATTACAACCTTCAAGAAAAATTACGGTGGTGCCGTCCGCCAAGGACT  
TCATAGACCTCACGTTGTGCGAAGACTCAACGAAAGAGCTCCAACCGTTATTCTATAAACATTACCAAAATACATCGCA  
TTAGACATTTTACATGAGAAAAAGTCAAATTTACTCAACAGAAATTACCATGATAGACTTTACAAAATTTCTAACAG  
ATTTCCCAAAATTGGATGATATTCATCCGTTCTATGCTGATTGGATGAATATTTCTACGACAAGGATCATTACA  
AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTGTCTAAAGATTATGTGCGACTGATGA  
AGTATGGCGACTCTCTCTACCGCTGCAAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA  
GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCCTCAGCATTTATCCCGTTTGGCAACCATTTGATCCGAATA  
CCAGGACCCCTGCTTTTGTGTGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG  
TGGATGTCCAGCCCTATCGGTTCAACAACCAAGTCTCTGTTTGGTGGGCACATGGATTATAAGTATCTACGTTGGC  
AGGTTGTAGACACTCTCGGATCTCGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG  
CCCTGGCCCACTCCGTGCTCGGCTCTGTATGTGATGGATTGTCTGAGCAGTGTGGGCATGGGCTGAGGGAGC  
AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAAACAAATGTGATG  
TGAAGAGAAATAGCTGAACCTTTCTGAAGATGATCAGAAAAATTTACAGATTTGCAGTCTGAAGGATTCCCTGTAA  
TAGAGACCAGCACCCCTGACTGAGGAAGGTGTTATTAAGTTAAACAGAGGCTTGGCATAGGCTTTTGGCTCATC  
GAGTGGAAACCAAAATGAAGGGAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAAGGA  
GGGACGATAAGGAGAGGCCCTTTCTATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT  
CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTTGGATCTTCAGAAGTACTGGG  
ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAAGAACTCGGGAAGGCCATAATATAGCTGATTATATTG  
ATCCAGCCATCATGAAGAAATTTGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA  
GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAAATTCGAGAGAAAAAGAAGT  
TGAAAATCTGGAGTCCAAAGAAAAGAATACACAGGGACCCAGGATGCCGGAAGCTCTAAGAAGGTTTCAGAGGA  
CAGTTTGGAGAAGGAGATGCGTAGTCTTGGTGTGACATGGACGATAAAGACGATGCCCAATTACGCAGTCCAGG  
CAAGAAGATCCCGGAGCATCTAGGAAAAAGAAAGCGGGAAGACTCTGCTCCCCGTCCTCTGTGGCCCGGAGTG  
GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGATGTCAAGATGGTGAAGAAGCCAAAGACTATGA  
AGAATGCTCAGAAGAAGATGAATCGTGTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTGATATGAAGCCCA  
AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGATAGTATCCGTTTGGTGGCTGGCTTCG  
CTAGAGTGTTCGTGTTTATTTCTCGGTTTGGTACAGTATGGTTTCATGAAATTGGAGCTCTGTACAAACTGAAAA  
AGACAAAAATAAGTAAAGCACTTGTGCTTGTCTGAAACTATGGTTAACCCCTATATAGGTGTGGGAAATTTTGT  
CACTGCATAATATTACAAATATTTTGTAGTAGACAGTGTTCCACATTTAATGGAGTATCAGTTGCTTCAGATTTT  
CAGAACTGGGAAGATTCTGGTGTAACTGGGTTGTTTTGTATGGAGAAAAACCTTATTTTCTTTTGTAGAGCT  
GGGAGCAAAACAGGTTTATGAGTGTGTCGGAATCCCGTGCTTAAAAATACGCTCTTAAATATTTTCTAGTCTTATT  
TTACAATGCTCATTTGATGCTGTCTTCAACTATTTTATCCAAAAATAACCTCCAGAAGAAACTAAAAAATAA  
AAAAAAAAAAAA

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**FIGURE 984**

MAHYNFKKITVVP SAKDFIDLTLSKTQRKTPTVIHKHYQIHRIRHFYMRKVKFTQQNYHDRLSQILTD FPKLDDI  
HPFYADLMNILYDKDHYKLALGQINIAKNLVDNVA KDYVRLMKYGD SLYRCKQLKRAALGRMCTVIKRQKQSLEY  
LEQVRQHLSRLPTIDPNTRTLLCGYPNVGKSSFINKVTRADVDVQPYAFTTKSLFVGHMDYKYLRWQVVDTPGI  
LDHPLEDRNTIEMQAITALAH LRAAVLYVMDLSEQCGHGLREQLELFQNI RPLFINKPLIVVANKCDVKRIAELS  
EDDQKIFTDLQSEGFPVIETSTLTEEGVIKVKTEACDRLLAHRVETKMKG NKVNEVLNRLHLAIPTRRDDKERPP  
FPIEGVVARRRMETEESRKKRERDLELEMDDYILD LQKYWDL MNLSEKHKIPEIWEGHNIADYIDPAIMKKL  
EELEKEEELRTAAGEYDSVSESEDEEMLEIRQLAQIREKKKKL ILESKEKNTQGP RMPRTAKKVQRTVLEKEMR  
SLGVDMDDKDDAHYAVQARRSR SITRKRKREDSAPPSSVARSGSCSRTPRDVSGLRDV KMVKKAKTMKNAQKKMN  
RLGKKGEADRHV FDMKPKHLLSGRKKAGKKDRR

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**FIGURE 985**

GGCTGCGAGAAGACGACAGAAGGGGGAAGGGGCTGATGCGAACTGGGGCCACGGTAGCCATCGCGCTTTGCAGTT  
CGGTCTCCTGGGTGACGGCCAACGCCAAGTAGGGGATTGCGTTCCCTCCAGTCGACAGCCCTATCAGATTTGGAT  
**ATG**TCCCTTCATATTTGATTGGATTTACAGTGGTTTCAGCAGTGTGTACAGTTTTTAGGATTATATAAGAAAACT  
GGTAAACTGGTATTTCTTGGATTGGATAATGCAGGAAAAACAACATTGCTACACATGCTAAAAGATGACAGACTT  
GGACAACATGTCCCAACATTACATCCCACTTCCGAAGAAGTACCATTGCTGGCATGACGTTTACAACCTTTTGAT  
CTGGGTGGACATGTTCAAGCTCGAAGAGTGTGGAAAACTACCTTCCTGCTATCAATGGCATTGTATTTCTGGTG  
GATTGTGCAGACCACGAAAGGCTGTTAGAGTCAAAAGAAGAACTTGATTCACTAATGACAGATGAAACCATTGCT  
AATGTGCCTATACTGATTTCTTGGGAATAAGATCGACAGACCTGAAGCCATCAGTGAAGAGAGGTTCGAGAGATG  
TTTGGTTTATATGGTCAGACAACAGGAAAGGGGAGTATATCTCTGAAAGAAGTGAATGCCCGACCCCTAGAAAGTT  
TTCATGTGTAGTGTGCTCAAAAGACAAGGTTACGGAGAAGGCTTCCGCTGGATGGCACAGTACATTGAT**TAA**CAC  
AAACTCACATTGGTCCAGGCTCTCAACGTTCAGGCTTACTCAGAGATTTGATTGCTCAACATGCATAACTTGAAT  
TCAATAGACTTTTGCTGGTTATAAAACAGATGTTTTTTAGATTATTAATATTAAATCAACTTAATTTGAATGAGA  
ATTGAAAAC TGATTCAAGTAAGTTTGAGTATCACAATGTTAGCTTTCTAATCCATAAAAGTACTTGTTTTTTAC  
AGTTTATAATCTGCATACCCCCAGCGCCATTGTAAAGAGCAACTTCCAGCAGTACATTTGAAGCACTTTTTTA  
ACAACATGAAACTATAAACCATATTTAAAAGCTCATCATGTTAAATTTTTTATGTACTTTTCTGGAAGTACTTTT  
TAAATTTTAGATTATATGTCACCTATCTTAAGTGTACAGTTAATAATTAGCTTATTCAATGATTGCATGATGCC  
TTACAGITTTCAATAACTTTTTTCTTATGCAAAAGCTCATGCAATAAAACAAACTCTAATGTTTGGCAAAAAAA  
AAAAA

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**FIGURE 986**

MSFIFDWIYSGFSSVLQFLGLYKKTGKLVFLGLDNAGKTLLHMLKDDRLGQHVPTLHPTSEELTIAGMTFTTFD  
LGGHVQARRVWKNYLPAINGIVFLVDCADHERLLESKEELDSLMTDETIANVPILILGNKIDRPEAISEERLREM  
FGLYGQTTGKGSISLKELNARPLEVFMCSVLKRQGYGEGFRWMAQYID

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FIGURE 987A

CCGGCCCGGCCCGGCCCGGCCGACCGCTCTTGTGCTGGCGGCCCAACCGGGTCCGGCCCCGGGGGGGGCGGGGGCCGC  
 GGCCGCCGAGGATAGTGGGAAATCCAACAGCAAGTTGAAGCCCCAAGTTTGTGGAGGAGCTGACACAGGAAGACCTACT  
 TTACCGAGAGGAGGTCCACGAGGTGGTACAAAGGCTTCATCAAGGACTGCCCGATGGGACGCTGATGCGGCAG  
 GCTTCCAGAAGATCTACAAGCAATCTTCCCGTTCGGAGACCCACCAAGTTTGGCCACTTTTCAACGTCT  
 TTGATGAAACAAAGGACGGGCGAATTGAGTTCTCCGAGTTTCATCCAGGCGCTGTGCGTGACCTCACGGGAACCC  
 TGGATGAGAAGCTACGGTGGGCCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCCACAGGAATGAGATGC  
 TGACATTTGTGGATGCCATTTTACCAGATTGGTGGGGAATACCGTGGAGCTCCGACAGGAGGAGAACACTCCTGAGA  
 AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCTGACAGGAGTTCACGAGG  
 GGTCCAAGGCAGACCCGTCATTTGTGACGGCGCTGTCCCTCTACGACGGGCTGGTATAGTCCCGAGGCTGGAGCTG  
 GATCGCTGGGAACCACTCACTCTCTTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCCTCCAC  
 CAGCCTCTTCCCGATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCGGCTCTCCTCTCCCTGTGCTG  
 CACCATCCCCCGCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGGAACGCAACACGAA  
 TGGAAAAGGCTACAGCCCTCTGCTATAAACCAAGGACTTGGCTGCCTCGACGGCAGCCTCCGTTCTCCCGCTCTC  
 TTGCGCGTGTGCTTTTGTTTTATTTTGAACAGAGCTTTTAAAGAAAAAAAACAACTACCTTTCTGCTCTAGA  
 AGACACAGACTGACAGATGGGTGAAGGCTGGGGACCTCAGAGAATCTGCTTGGCTGCCCTCGCTCCCTCTTC  
 GCGAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCGTCAACGTTATTTGTGCTGCCATC  
 TTTTGGGACGAAAAACCACTCGCTGGCTAGGATGATTAATATGAGGATGATGATTTTTTTTGTGATAACAGTAT  
 TGTGCTTTTGTGGGAAAGTGAGGTTTTTTTTTATATACATATATAATTGATATCTTTAAATTTATGTGTTGT  
 AACTGTGTGCTGCTGGTGTGCTCTCAGCTCCAGGGCTGCGGGCCACCGTTTACATGTGCACGCCCTGACC  
 CACTCGCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAGCCAAAAAAATTTTTTTTTTTTTCAG  
 ATACTGTGCTTGAATTTTGGAGAGGGGAGAGGTGGAAATTCCTAAATGGCTAATGCACCTGTCCCTCCAGCCGA  
 ATGCTCTCTGCCAAACCCCTTTTCCCTGCTGCCCTGTGCCCGCATCCTTGTCTCCCTGGGTCCGTAAACATTT  
 TTTCCGAGGATGAACAGGGGACATCTTTTAGGTTTCTCAACTCTTGCTTTGGTGTTTGCCCGCAGCATGGAACAG  
 GGCCCTTAAGGCTGGGAGCTGGAAGCTGGAAGAGGGGCAATGGGTACCCAGGCAGCTCAGGAGAGGTGGCTTTGAAGTA  
 AGTTAGCAGAAATCAAGGGGACCCCGCTCTTGGGCTGGGAGGGGATTCAGAGATAGTTCATAACTCTCTCC  
 CGCTCTGCCTTCCCTCTCTCTATCTGCTTTTTCCAGTAAACTGCATGGTGCTCTCCCTGGCTCTCTTGGCT  
 CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGGTG  
 GGCCACATGTCTTCCAGGAGGCTCCAGCGGTGCCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCAGG  
 AATCGAGGCCACCTTGACCAAGCTAGGAGCCCAAGGTCCGGCCCTTGCTCTTTGATTGTGGGCAGGCTCTCTG  
 CCTCTCTGGGTCTCAGTTGGCCCATCTGCAGAGCGAGGAGGCCCGGGCTGGTTGGTCTTGAAGGCCCTTTTCCA  
 TGCCGACATCATGTCACTCTAGGCTGGGGTTCAGTTTCTGTGGCTGGTGATGCTGTGGTTAAGTTTGTCTGAC  
 CCCAGACCCGAGGAGCTGTCTGAGTACAGCACAGCACGCCCTATTGCTGGCTGTGCTGGTGTGGGGTCAGTTCC  
 AGCAGATGAATGTGTATGTGGCACACCTTGTCCCTTCCCGCAGCATTTCTGGTTCCCCCCAGACCCCTTGAGCG  
 CTCCTTTGGGACCCAGAAGGATCTCTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCAGACATGTGAGGGCC  
 AGGCCGGGTCTAGAATCTTCTGTGCTGCTTTGCGAGATCAACAGCCCATCAGCCCATGTGTTTGAAGGGGACACT  
 TTGGTCTCGGTTCCACCCCTCAGCAAGCAGGCTCCAGCCCGAGGAAGGCTCTGCGGTAGTGAGCTTGGCGTG  
 TGGGGCTGCGTGGCTGTTCCCTTGGCTGGAGCATTACGCCAACCCAGCGCTCCCCCTGAGGCGTTCTATTGGCA  
 GCGCCCTAGGACTGCACGCTGGCCCCACGTAACCCCCCTCCCCACCAACATCTGCAGGATGGGCTCAGTG  
 GTTCCACCTTTCAGAGGCCACTTTGAAGGGTGAATCTTTGAGGCCCTGCCAGTGGGCTCCGCTCTCAGCTGCTG  
 CCCCCGGGCGACCTGGGACTCAGCCACACCGCTGAAGTTTCTCAGCTGGGCTGTACCTGGGGTCTGGGGCAGGG  
 AACGAACAATGGTGGCTTTGGGCTGAGAGGATGAGGGAGGTTCTTCCAGGTCAAATTAATTTCTTTGGCTCTG  
 CCTGAGGCTCGATTGCTCTCTGTGCTCAATGGGACTGACACTGTTGTACAACTGACCTGTGGGCTGAGGGTGTG  
 TGGGCTTAAGCATGTGGACCCCTTCGGTGTGCTGCGCTTCTCCTCATGCTCGCTGGCTTTGGCTTTTGGTTGA  
 AGCCACAGGTGTGGCTTTCTGGCTTAGCAGATGGTATGCTTGGGACCGCAGCCAGCATGCCGGTGGGCCACCA  
 GCGCCAGGCCAGCCAGACTGCCGGAAGGGCGGCCCTTCCCGGCTCTGCGGGGTGTGCTGACACTGGCCATTTTC  
 ACTAGAGTTTGGCTGGCAGGACCGATCTCTGCCCTCTCCTCTCCAGGCTCTGCTGCTGCACTGATGCCGACCA  
 ATCTGAGCCAGGTGCTCTCTGAGCAGCCGCTGCGCTCTCCACAGCGGCTTTGCCACCCAATGCGGCTCGCTT  
 CAGATGCTCTGATGACAGGGGCAGGCCATAGTCCCTCTGCAGAGCTCTGCATGGGGCCAGGCGAGGCACGAC



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**FIGURE 987B**

CCCAGGCGGCCAGTCGGCCACGGCCTGTCTCTTCTCTCGTAGCGTCTGCTCCTCACTTTTGTGTGATGGTGACTT  
AGGAGAAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAATAACATCAAGGCAAGCGTACGTGTCACC  
CTCTGTA CTGACATCTCTCCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCTAGACAAGTGCACCTGGGGT  
TTCAGGAAC TTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCCTTCTGGAGAGGCA  
GGCTGTCTCTGGAAAAAGCCTCCATTGCCACCCGCCAGGCGGAAAGTCACCCGTGTTCCAGCGCGGTTTCAGCA  
TTTAATTTTAAGGGAGCTAAGGAAGCGCGGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC  
AACCCACCCGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCTCAGAGGCC  
CTGGGCCACCACATTTCTGGCAGCGTTTCCAGACCCCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA  
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCTCTTTTTTTTTTTTTTAAATATCTGCGGAATAAACCCAA  
TGTTAATTTTGAATGAATAAAAGGCTTTGTGATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 988**

MGKSNSKLKPEVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFPGDPTKFATFVENVFEDEN  
KDGRIEFSEFIQALSVTSRGTLDKLRWAFKLYDLNDGYITRNEMLDIVDAIYQMVGNVELPEEENTPEKRVD  
RIFAMMDKNADGKLTLEFQEGSKADPSIVQALSLYDGLV

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FIGURE 989

AGAGCTCGGGTGGACTCCGACCCGGCGCAACATGSCCGAGCCTCGCCTCTGCGCGACTGCCAGGCCGTGGAAGG  
ATGCGAGGCTCCCCTCTCCACCACAAGCAACGAAGCCTGCAAGCTGTTTCGATGCCACGCTGACCCAGTAGTATGTAA  
AATGGACAATGACAAGAGTCTCGGTGGCATCGAGGGCTGCCGTGCAAGCTCAAAGCAGCAGATCCAACTTTTG  
TGATGGCCACGCCATGGCTACTGGCCTTGTGCTGATTGGCACTGGAAGCTCCGTGAAGCTGGACAAAGAGCTGG  
ACCTGGCTGTGAAGACAATGGTGGAGATTTCAAGAACCAGCCGCTGACAAGGCGGGAGCAGCTGCACGTGTCTG  
CAGTAGAGACATTTCGCAATGGGAACTTCCGAAAGCCTGTGAACATATGGGAACAGATTCTCCAGGACCACCCGA  
CAGACATGTTGGCCCTGAAATTTCCCATGATGCTTATTTTACCCTGGGCTATCAGGAACAGATGAGAGATTCTG  
TTGCTCGAATTTACCCCTTCTGGACACCTGACATCCCCCTAAGCAGCTATGTGAAAGGCATCTACTCTTTTGGCT  
TGATGGAACCAACTTCTACGACCAGGCAGAAAACCTCGCCAAAGAGGCTTTATCTATTAAACCGACAGACGCAT  
GGCTGGTGACACCCGTGCGCTACATCCACGAGATGAAAGCAGAGATCAAGGATGGGTTGGAATTCATGCAGCAGT  
CAGAGACCCCTCGGAAGGACTCTGATATGTTGGCTTGTCTAATCTATTGGCACTGGGCTTTATATCTGATTGAGA  
AGGGCGAATATGAGGCCGCGCTGACCATCTACGATACCCACATCCTTCCAGCCTGCAGGCCAACGATGCAATGC  
TGGACGTGGTGGACAGCTGCTCCATGCTCTACCCTGCAGATGGAAGGAGTGTCTGTGGGCCACGGTGGCAGGA  
TGCTCTGCCTGTGGCCCGGAAGCAGACGCCGAGACCATCTCTGCTGTTCAATGACGCACACTTCCCTGATGGCATC  
CCTGGGTGCACACGACCCCGAGCACACAGGAGCTGCTGACCACCTCGCGGACGCCAGCGAATCCCGAGGGA  
GAACTGCCAGCACTCTTGGCCCGAGACGTGGGGCTGCCCTGTGCCAGGCCCTGGTGGAGGCTGAGGACGGGAA  
CCCTGACCCGCTCTGGAGCTGCTCCTGCCATCCGCTACCGGATCGTCCAGCTCGGTGGGAGCAATGCCAGAG  
AGACGTTCTAACCAAGCTGCTGATTACGCGGCCCTTAACTGCACCTCAGCGCTCCATAAGAAGCTAGGCCGGAG  
CCTTCTGATGGAGCGTGATGCTTGAAGCCCACTCGCCCTGACCGAGCGGCTCATCCGAAGGCAGCTACCGT  
CCACCTCATGCAAGTGAGCCAGCCTGGCCGCTCCACCTGCAGAACCTCAGTGGTGGCGTCACTGCGTCCAGTCA  
CTGCTCCACCGGGTTAGGGTCAGGAGACGGCCAGAGCCTGTTTGTAGGGCTGTTAGAGGGTGATCTCAGTTT  
ACAGGAAGTGGGTACGGGTAAATTTTAAATGTGATTCCGAATCTCCTTTCAGTCTCGAGAAGGGCCAAATGAGC  
ATTTTTCAGCAGTACAGCCAGTGTGAGTGTGCTCTTTCCACCCTGCTGTGCAAAATCTGTTTCCAGGGGAAATG  
TGCTACTGCTGGTGGTTCAAAGGTTGGAAGGCAGTGCAGAGGTGGGGGTGATTCTGCTGGGACAGGCTCTTCC  
AGAGGCAGCCTCCCCCACTGCTGTGCTCCCGTCCCAACGAGCTGCCCTTGGGATGGACCTTTTCATCTTTTCT  
TTATATTCTAGACAGTCTCTGTTGTCTATTGTGTGCTGTCCTATTTTCAGGTGAGGGTACCGGGGTAGGGGA  
GTGGCCTGCCAGGGTCACTATGAGAGGCCCCACCTGCTGCTTTGGACGAGCCCCCTGCTGCTGCATCCA  
CCACCTTCTTACAGATCAGCGCGCATATGGGTCCTTCTGCTGCTCTGCGGCGAGTCTTGGAGCCCCCTGGGG  
GGCTCTGTTGGTGTGATTGGACCCGTTTCTCTTTTAACTGCACATCATAAAGGGCTTCATGTCGAGCATG  
ATTTTAATCATAAATGCACCTTCTGAGGTGCAAGGATTGAGCTCAGAGCTGCTCTGTTGTGGCAAAACCCAAAGTG  
CTGTGATGTGGCTGTGACAAGCTGGAGCGGGTCTGCTGAGCGCCGCTCTGCTCTCTGCTTCTCTCTACTGAAC  
GCCCTGGAATGTGGCGCTGACTCAGCTGTGCTGCTTTTACGCCCTCCTGTGAGGGCGGGTCCCAAGTGCAGAGT  
TTTTTCAAGTCTCAGTTTGTACTGAAATAGGGATTATCAGGGCAGGAAGCAGGCAGGCCCTCTCAGAAGGGA  
GAGGAGGCCTCAAATCTATTGAGTCCCCACAGTTTGTCTAAGCCAGGCAGCAATTTCTGTGATTAAATGAATTC  
ATCAGTTCCTCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 990**

MAAASPLRDCQAWKDARLPLSTTSNEACKLFDATLTQYVVKWTNDKSLGGIEGCLSKLKAADPTFVMGHAMATGLV  
LIGTGSSVKLDKELDLAVKTMVEISRTQPLTRREQLVSAVETFANGNFPKACELWEQILQDHPTDMLALKFSDH  
AYFYLGYQEQMRDSVARIYPFWTPDIPLSSYVKGIYSFGLMETNFYDQAEKLAKAELSINPTDAWSVHTVAHIHE  
MKAETKDGLEFMQHSETLWKDSMDLACHNYWHWALYLIKEGEYEAALTYDTHILPSLQANDAMLDVVDSCSMLY  
RLQMEGVSVGHGGRMSCLWPGSTAETTSCCSMTHTS

CGGACGCGTGGGCGAGGTGGCAATTGGGGAAGGGGTTCTGGGCTGCCCGAGGCACACAGGCCAGAGCTTCGTGGA  
TACCTGCAGGGCCCAAAGGTCCTCTCCCTGTTTTGAAGAGTGAGTGATGGCTATGAGGTAGCGGCCAGGCTGATCA  
CCCCTCGGTTGGCTTGAGGCGAGAATTCTGTAAATCCTCGCCAAAGTCTTTCTCCAGGCGCACTGGTTAGCTCATCTC  
AGCCTCTCTGGGAGCATCAACACCAACATGGCCAGAGGGACTGCAGTGGTGTGTTTGGACCTGTGTTACCCACC  
CAAGGCTAAAGGCAGAGCCAGATGGAGAAGGAAAGGCAAGTGACTTGTCCAGAGCCACTCTGTCAAAGGGGACT  
TGAGTCTCTCAGGCGCTGTGACTCCAAAGCTGACAAGCAGGAGCCAAAGTTACACCCCTGTTAAACCTGCGCTTCAA  
GGGACGACTCTGTAAAGATTCTCTGCTACTTATTCAAGTTGACACGATGCCCTTACACTCCAGCTGAGGTCCCGC  
CTTCCCTCTGCCATAAGGAGTTTGATTCTACAAAAGAAACCAACATCAGAAATACATCCAGCATGGCTGGAGAG  
CTCCGACCGAGCCGCTGGTGGTCTGCCAGGTCCCTTGCTCCAGCTTTTGAAAGATTCTGCCAGGTCAACACT  
GGTCTCTACCCCTGTGGGCGAGATGAGCCAGAAAAGTGAGTGTGCCCCCTCAAGGTGCTATCTCAGAGACC  
AGGATGGGCCATCCCAGTCTGGAATACGAGTTCGGTGCCTGCACCGGTAGCCTGGCTTCGCTGGAGCAGTAC  
TCGGAGCAGCTGAAGGACATGGTGGCTTCTTCTGGGCTGCAGCTTCTCCCTGGAGGAGGCCCTGGAGAAAGCG  
GGGCTCCCCAGAAGAGACCCAGCGAGGTACAGCCAGACAAACAGTGCCCTGTGTACCCATGCTGGCTTCTGCTGC  
CCTCTGGTGGTACGATGAGGCCCATTTCCCAAGGACAAGCTGGAAGGGCTGGTGCGGGCCGTGCTGCTCCCTCGGA  
GGTGAGCAGGGGCAACCTGTTACATGGGCGACCCAGAACTGTTGGGAATCAAGAGCTTTCCAAACCTGCTAC  
GGGATGCCATGGTGTGTCCCCAGGGGAGGTTCCAGTGTCTTGGCTTCTCCGCTGACCACTGCTGGAGCTGTG  
AGCAGCTGTGAGACCCCACTGGCTTTTGCCAGCATCCCAGGCTGCACAGTTATGACTGACCTGAAGGATGCAAAAG  
GCTCCACCTGGTGTCTCACCCAGAGAGAAATTCAGAGGTCCATCACATTTCCCAAGATCCTCTGCATACAGC  
ATCCGCTCAGTCTCTGCTTCTCAGAAGATCAGAGAACTAGAGTCTATGATCGGCATAGACCCAGGGAACCGGGG  
ATTGGGCACCTGCTCTGTAAAGATGAGCTGCTGAAGGCCCTCTCTCGCTGTCCCATGCCCGCTCAGTGCTCATC  
ACCACTGGGTTTCCCAACACATTTCAATCATGAGCTCCAGAAAGACAGATGGCCCAACAGGAGCTGTTGCTCTG  
GTTGCTTCTGTCAGGCGCTTGGAGAAGGAGGTGCCATAATCGTTGACACAGAGCCTGGAACITGCACCCAGAAG  
ATTGTTGAAGATGCTGTTGAGCAAGGTGTTCTGAAGACGCAGATCCCGATATTAACTTACCAAGGTGGATCAGTG  
GAAGCTGCTCAGGCATTCCCTGTGCAAAAAATGGGGACCCGACAGACACCTAGATTGTACCACTGGTGGCCATAGAG  
CGTGCCCGAAGAGCTGCTGATGGCAATTACTACAAATGAAGGAAGATGAACATCAAGCACTTGGTTGACCCCAT  
GACGATCTTTTTCTGCTGCGAAGAAGATTCTTGAAATCTCATCACTGGAGTCCGTTGATGGAGGCAACGAGCTT  
GGGATGGGTAAGTCAAGGAGGCTGTGAGGAGGCACATACGGCACGGGATGTATCGCTGGCAGCTGGAGGCT  
GACTTGTCCGCTCATTGCTGGTGTCTTAACTGGGAGGCTATGCCCTGGCCCTGCGCACTTACATCCTGTACTCA  
TGTGCTGCCACAGTCAGTACCTGAGGAAAGCAGTCGGACCTCCAGGCACTGGAGATCAGGCTGGACTCAG  
GCCCTCCCGTCGGTCATTAAAGGAAGAAAAATGCTGGGCATCTTGGTGAGCACAAAGTCCGGAGTGGCGTCTCG  
GGCATCTGGGCGATGGAGGTGGATGGGCTGCCCTTCCACAACACCCACGCCGAGATGATCCAGAAGCTGGTGGAC  
GTACACAGCGCACAGGTCTAACCCGTCCATGTTCCGTTGAGCAGAGTCCCTACCAACGGGCGAGTCTGATCCCG  
GGAGAATGCAGCTGCTTCTGGCGCAACATCTGTAGTAAACACTGGTCTTCGGTGAGCAACGAACACTCGCTGG  
CCTGGGAACTGCATGCCACTTTCTGGGAGGGGTTAGTGCAAGTGCCCTGGACAAAGGACAACATTTCTCTGGG  
GCTTTTAACTTTTATCTTAAGACTCTAAAGCGCTTGATTTCACCCCTCTTACTCTGGCTTCTTCAGGGAAC  
CCACGTGGTCTCCTGTGAGAATCTCTCGACAGTTACTTATGGGGACACTTGTGAACAATTAACCTGCCAGGCAGA  
CGATGAGAACAAACATTCCAGGGCCATGTAGGATAGGATACCTCCAGACTCCAGTCATCTCCCCATCCATGGTT  
TCTGTACTCATGGTTTCAGTTACTCATAGCCAACTGCAGCCGAAAATACTAAATGAAAAAATTCAGAAATAAA  
CAACTCTTAAGTTTAAAAAATAAAAAAAAAA

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**FIGURE 992**

MPFTLHLRSRLPSAIRSLILQKKPNIRNTSSMAGELRPASLVVLPRSLAPAFERFCQVNTGPLPLLGQSEPEKWM  
LPPQGAISETRMGHPQFWKYEFGACTGSLASLEQYSEQLKDMVAFFLGCSFSLEEALKEAGLPRRDPAGHSQTTV  
PCVTHAGFCCPLVVTMRPIPKDKLEGLVRACCSLGGEQGQPVHMGDPPELLGIKELSKPAYGDAMVCPPEVPVFW  
PSPLTSLGAVSSCETPLAFASIPGCTVMTDLKDAKAPPGCLTPERIPEVHHISQDPLHYSIASVSASQKIRELES  
MIGIDPGNRGIGHLLCKDELKASLSLHARSVLITTFPPTHFNHEPPEETDGPFGAVALVAFLLQALEKEVAIIV  
DQRAWNLHQKIVEDAVEQGVLTQIPILTYQGGSVAAQAFLCKNGDPQTFRFDHLVAIERAGRAADGNYYNARK  
MNIKHLVDPIDDLFLAAKKIPGISSTGVGDGNGELGMGKVKEAVRRHIRHGDVIACDVEADFAVIAGVSNWGGYA  
LACALYILYSCAVHSQYLKRAVGPSRAPGDQAWTQALPSVIKEEKMLGILVQHKVRSGVSGIVGMEVDGLPFHNT  
HAEMIQLVDVTTAQV

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**FIGURE 993**

GGGCAAAACCCCTTTGAAAAATATTCTAAATGAAAATGACATAGTATTCATAGTGGAAAAAGTGCCTTTAGAAAAGG  
AAGAAACAAGTCATATTGAAGAACTTCAATCTGAAGAACTGCCATATCTGATTTCTCTACTGGCGAAAAATGTTG  
GACCACTTGCTTTACCAGTTGGGAAGGCAAGGCAGTTAATTGGACTTTACACCAATGGCTCACAATCCTAATATGA  
CCCATTGAAGATTAACTGTCCTGTTACTGCCCTTCCCCCCTTTGGGTAAGATGTGACAGTTTCAGATCCTGAAG  
GTACTTGTGGCTAGGAGCTGAGCTTATCACAACAACAACAGCATTACAGGAATTGTCCTTATATGTTGTCAGTT  
GTAAGAGCTGATAAAAAATTATTCTGTAATCTTTGAAACCTAAAAAATTTACACAAGAAAAAGACATCACTTGTCTA  
CTGTAACATCCAAAGGCTTTGCCAGTATGAGCTCTTTAAGTCCTCTGCCTTGGATGATACAATCACAGCATCAC  
AAACTGCGATCGCTTTGGATATTTCCCTGGAGTCCTGTGGATGAGATTCTTCAAAATCCCTCCACTCTCTTCAACTG  
CAATCTGAATATTAAAGTGGAAATCAGGAGAGCCAGAGGTCCTTTGAATCATCTCTACAGAGAAGTGAATTTCT  
TCTTGTGTTGGCTGATGGTTTGAGGACTGGTGTCACTGAATGGCTCGAGCCCTGGAAAGCAAAATCTGCTGTTGA  
ACTTGTTCAGGAATTTCTGAATGACTTAAATAAGCTGGATGGATTGGTGATTCTACAAAAAAGACACTGAGGT  
TGAGACCTTGAAGCATGACATGCTGCAGTCGATCGTTCCGTCAGCGCTCTTTTCAAAGTTCGGAGTGATCTTGA  
TTTTGCTGAGCAACTGTGGTGCAAAATGAGCAGTAGTGTGATTTTCATACCAAGACTAGGTGAAGTGTTTCACATT  
GATCATCCAGAGTCTACAACGTGGTGATATACAGCCATGGCTCCATAGTGAAGTAACAGTTTACTAAGTAAGCT  
CATTATCAGTCTTATCATGGAACCATGGACACAGTCTTCTCTCAGTGGGACTATTCAGTTCAAATGCTTTTGGGA  
AATTGGTTTGGACAACTAAAGAAAGATTATATCAGTTTTTCATAGGTACAGGAACCTTGATCTTTTGAATCATT  
GGAATACTTTCATTGCTCCATCAGTAGATATACAAGAACAGGTTTATCGTGTCCAAAACTCCACCATATTCTAGA  
AATATTAGTCAGTTGCATGCCTTTCATTAATCTCAACATGAACCTCCTTTTCTTTAACACAGATCTGCATAAA  
GTATTACAAACAAAATCCTTGTATGAGCAACACATTTTTTCAGCTGCCAGTCAGACCAACTGCTGTAAAGAACTT  
ATATCAAAGTGAGAAGCCACAGAAATGGAGAGTGGAAATATATAGTGGTCAAAGAAGATTAAAGACAGTTTGGCA  
ACTGAGTGACAGCTCACCATAGGCCATCTGAATTTTCACAAACCTGATTTTTCGGAATTAACACTAAGCGGTAG  
CCTGGAAGAAAGGATATTCTTTACTAACATGGTTACCTGCAGCCAGGTGCATTTCAAGTGAAGTGTGCTGATGAA  
GTCTCTATAAGCACAAAGCC

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**FIGURE 994**

MAHNPNMTHLKINLPVTALPPLWVRCDSSDPEGTCWLGAELITTNNSITGIVLYVVSCKADKNYSVNLENLKNLH  
KKRHHLSTVTSKGFAQYELFKSSALDDTITASQTAIALDISWSPVDEILQIPPLSSTAI



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**FIGURE 995**

GTTCCGAGCGGGCGAGCGGAGTTAGCAGGGCTTTACTGCAGAGCGCGCGGGCACTCCAGCGACCGTGGGGATCA  
GCGTAGGTAGCTGTGGCCTTTTGCAGGTGCTGCAGCCATAGCTACGTGCGTTTCGCTACGAGGATTGAGCGTCT  
CCACCCAGTAAGTGGGCAAGAGGCGGCAGGAAGTGGGTACGCAGGGGCGCAAGGCGCACAGCCCTCTAGACGACTC  
GCTTTCCCTCCGGCCAACCTCTGAAGCCGCGTCTTACTTTGACAGCTGCAGGGCCGCGGCTTGGTCTTCTGTGCT  
TCACCATCTACATAATGAATCCCAGTATGAAGCAGAAACAAGAGAAATCAAAGAGAATATAAAGAAATAGTTCTG  
TCCCAAGAAGAACTCTGAAGATGATTCAGCCTTCTGCATCTGGATCTCTTGTGGAAGAGAAAATGAGCTGTCCG  
CAGGCTTGTCCAAAAGGAAACATCGGAATGACCACTTAACATCTACAACCTCCAGCCCTGGGGTTATTGTCCAG  
AATCTAGTGAAAAATAAAAAATCTTGGAGGAGTCACCCAGGAGTCATTTGATCTTATGATTAAAGAAAAATCCATCCT  
CTCAGTATTGGAAGGAAGTGGCAGAAAAACGGAGAAAGGCGCTGTATGAAGCACTTAAGGAAAATGAGAACTTC  
ATAAAGAAATTGAACAAAGGACAATGAAATTGCCCGCCTGAAAAGGAGAATAAAGAACTGGCAGAAGTAGCAG  
AACATGTACAGTATATGGCAGAGCTAATAGAGAGACTGAATGGTGAACCTCTGGATAATTTGAATCACTGGATA  
ATCAGGAATTTGATTCTGAAGAAAGAACTGTTGAGGATTCTCTAGTGGAACTCAGAAATTGGCACGTGTGCTG  
AAGGAACTGTATCTTCCCTACGGATGCAAAGCCATGTATATGAATGCATTAATATTGACTGTTGAGAATTT  
ACTGCCGAAGTTTACCCTCCACTAGTTCTTTGTAGCAGAGTACATAACTACATAATGCCAACTCTGGAATCAAATT  
TCCTTGTTTGAATCTCGGACCCCTATTGCATTAAGTACAAATACTATGTATTTTTAATCTATGATGGTTTATGT  
GAATAGGATTTTCTCAGTTGTAGCCATGACTTATGTTTATTACTAAATAAACTTCAAACCTCCTGTGGAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

**FIGURE 996**

MNPSMKQKQEEIKENIKNSSVPRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTTSSPGVIVPESSEN  
KNLGGVTQESFDLMIKENPSSQYWKEVAEKRRKALYEALKENEKLHKEIEQKDNEIARLKKENKELAEVAEHVQY  
MAELIERLNGEPLDNFESLDNQEFDSEETVEDSLVEDSEIGTCAEGTVSSSTDAPCI

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**FIGURE 997**

ACGAGGGGAGCTCCGGCTGCGTCTTCCCGCAGCGCTACCCGCCATGCGCCTGCCGCGCGGGCCGCGCTGGGGCT  
CCTGCCGCTTCTGCTGCTGCTGCCGCCCGCGCCGGAGGCCGCCAAGAAGCCGACGCCCTGCCACCCGGTGCCGGGG  
GCTGGTGGACAAGTTTAAACAGGGGATGGTGGACACCGCAAAGAAGAACTTTGGCGCGGGAAACACGGCTTGGGA  
GGAAAAGACGCTGTCCAAGTACGAGTCCAGCGAGATTGCGCTGCTGGAGATCCTGGAGGGGCTGTGCGAGAGCAG  
CGACTTCGAATGCAATCAGATGCTAGAGGCGCAGGAGGAGCACCTGGAGGCCCTGGTGGCTGCAGCTGAAGAGCGA  
ATATCCTGACTTATTCGAGTGGTTTTGTGTGAAGACACTGAAAGTGTGCTGCTCTCCAGGAACCTACGGTCCCGA  
CTGTCTCGCATGCCAGGGCGGATCCCAGAGGCCCTGCAGCGGGAATGGCCACTGCAGCGGAGATGGGAGCAGACA  
GGCGCAGCGGTCTTGCCGGTGCCACATGGGGTACCAGGGCCCGCTGTGCACTGACTGCATGGACGGCTACTTCAG  
CTCGCTCCGGAACGAGACCCACAGCATCTGCACAGCCTGTGACGAGTCTGCAAGACGTGCTCGGGCCTGACCAA  
CAGAGACTGCGGCGAGTGTGAAGTGGGCTGGGTGCTGGACGAGGGCGCCTGTGTGGATGTGGACGAGTGTGCGGC  
CGAGCGCCTCCCTGCAGCGCTGCGCAGTTCTGTAGAACGCCAACGGCTCCTACACGTGCGAAGATGTGGACGA  
GTGCTCACTAGCAGAAAAACCTGTGTGAGGAAAAACGAAACTGCTACAATACTCCAGGGAGCTACGCTCTGTGT  
GTGTCCTGACGGCTTCGAAGAAACGGAAGATGCCTGTGTGCGCGCGGAGAGGCTGAAGCCACAGAAGGAGAAAA  
CCCGACACAGCTGCCCTCCCGCAGAACCTGTAAATGTGCCGGACTTACCCTTTAAATTATTCAGAAGGATGTCCC  
GTGGAAAATGTGGCCTGAGGATGCCGTCTCCTGCAGTGGACAGCGGCGGGAGAGGCTGCTGCTCTCTAACGG  
TTGATTCTATTGTCCCTTAAACAGCTGCATTCTTGGTTGTTCTTAAACAGACTTGTATATTTTGATACAGTI  
CTTTGTAATAAAATGACCATTGTAGGTAATCAGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 998**

MRLPRRAALGLLPLLLLLPPAPEAAKKPTPCRRCGLVDKFNQGMVDTAKKNFGGGNTAWEKTL SKYESSEIRL  
LEILEGLCESSDFECNQMLEAQEEHLEAWWLQLKSEYPDLFEWFVCVTKLVCCSPGTYPDCLACQGGGSRPCSG  
NGHCSDGDSRQGDGSCRCHMGYQGFLCTDCMDGYFSSLRNETHS ICTACDESCKTC SGLTNRDCGECEVGWLDE  
GACVDVDECAAEPPPCSAAQFCKNANGSYTCEDVDECSLAEKTCVRKNENCYNTPGSYVCVCPDGFEETEDACVP  
PAEAEATEGESPTQLFSREDL



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**FIGURE 1000**

MPLDPYHSVTWGHAGGSHHFVFGELRVRF ILESLRDEPDPRPSREGFAGRVGALAR DGPEPCDAASPPGGASC  
APELARPREDKSAQAKLEGGTRLCCRCPEESRLVPGGAVSPGDHVLVSGTRGTCGCRPRRHAGPELAHS

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**FIGURE 1001**

CGCTGTTGTTAGTACC GCGGAGCCGCCGAAACCTGCAGGAGTCTACTATGCAACTGCATACTGGATGCCTGCTG  
AAAAGACAGTACAAGTCAAAAATGTAATGGACAAGAAATGGGGACGCCTATGGCTTTTACAATAACTCTGTGAAA  
CCACAGGCTGGGGCATCCTGGAGATCAGAGCTGGCTATGGCTCTCAAACCCCTGAGCAATAGATCATCATGTTT  
TGGCTGGCTTTTTGGAGGGTTACCTCACTGCCCCACACATGAATGACCACTACACAAACCTCTACCCACAGTGA  
TCACGAAACCTTCCATCATGGATAAAGTGCAGGATTTTATGGAGAAGCAAGATAAGTGGACCCGAAAAATATCA  
AAGAATACAAGACTGATTCATTTTGGAGACATACAGGCTATGTGATGGCACAAATAGATGGCCTCTATGTAGGAG  
CAAAGAAGAGGGCTATATTAGAAGGGACAAAGCCAATGACCCTGTTCCAGATTCACTTCTGAATAGTGTGGAG  
ATCTATTGGATCTGATTCCCTCACTCTCTCCACAAAAAACGGCAGCCTAAAGGTTTTTAAAGAGATGGGACATGG  
GACATTGCTCCGCTCTTATCAAGGTTCTTCTGGATTGAGAACGTCCTTTTTGCTCACTCAAGCTGGTACACGT  
ATGCAGCCATGCTCAGGATATATAAACACTGGGACTTCAACATCATAGATAAAGATACCAGCAGTAGTCGCCTCT  
CTTTCAGCAGTTACCCAGGGTTTTTGGAGTCTCTGGATGATTTTACATTCTTAGCAGTGGATTGATATTGCTGC  
AGACCACAAACAGTGTGTTTAAATAAACCTGCTAAAGCAGGTAATACCCGAGACTCTCCTGTCTGGCAAAGAG  
TCCGTGTGGCCAAATATGATGGCAGATAGTGGCAAGAGGTGGGCAGACATCTTTTCAAAATACAACCTGCGCACCT  
ATAACAATCAATACATGGTTCTGGACCTGAAGAAAGTAAAGCTGAACCACAGTCTTGACAAAGGCACCTCTGTACA  
TTGTGGAGCAAAATCCTACATATGTAGAATATTCTGAACAACTGATGTTCTACGGAAAGGATATTGGCCCTCCT  
ACAAATGTTCCCTTCCATGAAAAAATCTACAACCTGGAGTGGCTATCCACTGTTAGTTGAGAAGCTGGGCTTGGACT  
ACTCTTATGATTAGCTCCACGAGCCAAATTTTCCGGCGTGACCAAGGGAAAGTGACTGATACGGCATCCATGA  
AATATATCATCGGATACAACAATTATAAGAAAGGATCCTTACAGTAGAGGTGACCCCTGTAATACCATCTGCTGCC  
GTGAGGACCTGAACTACCTAACCCAAAGTCCCTGGAGGTTGTTATGACACAAAGGTGGCAGATATCTACCTAGCAT  
CTCAGTACACATCCTATGCCATAAGTGGTCCACAGTACAAGGTGGCCTCCCTGTTTTGCTGGGACCGTTTCA  
ACAAAACCTCTACATCAGGCATGCCAGAGGTCTACAACCTTGATTTTATTACCATGAAACCAATTTTGAAACTTG  
ATATAAAATGAGGAGGGAGATGACGGACTAGAAGACTGTAATAAGATACCAAGGCACCTATTTTAGCTATGTT  
TTTCCCATCAGAATTATGCAATAAAAATATATTAATTTGTCAAAAAAAAAAAAAAAAAA

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**FIGURE 1002**

MPAEKTVQVKNVMDKNGDAYGFYNNNSVKTGIGILEIRAGYGSQTLSEIIMFVAGFLEGYLTA  
PHMNDHYTNLY  
PQLITKPSIMDKVQDFMEKQDKWTRKNIKEYKTDSEWRHTGYVMAQIDGLYVGAKKRAILEG  
TKPMTLFIQIFLN  
SVGDLLDLIPSLSPKNGSLKVFKRWDMGHCSALIKVLPGFENVLFAHSSWYTYAAMLRIYKH  
WDFNIIDKDTSS  
SRLSFSSYPGFLESLDDFYILSSGLILLQTNSVFNKTLKQVIPETLLSWQVRVRVANMMAD  
SGKRWADIFSKYN  
SGTYNNQYMVLDLKKVKLNHSLDKGTLIYIEQIPTYYEYSEQTDVLRKGYWPSYNVPFHEK  
IYNWSGYPLLQKL  
GLDYSYDLAPRAKIFRRDQGVTD TASMKYIMRYNNYKDPYSRGDPCNTICCREDLNSPNP  
SPGGCYDTKVADI  
YLASQYTSYAISGPTVQGGLPVFRWDRFNKTLHQGMPEVYNFDFITMKPILKLDIK



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**FIGURE 1003**

CGGAAGCAGGAAGTGAGTTTGCGAACGGAGCAGCTGCTGCAGGGCCCC**ATG**CGGACACCCAGTACATCTCTGCCA  
ATGACATCGCGCGTGTCTAGCCTGGACTGCCGTGAGGCCTTCGCGCTGCTGTCAACCACAGAGCGCCTCTATGCCT  
ACCACCTGTCCCGTCCGCGCTGGTACGGAGGCCCTGGCTGTGCTGCTTCAGACCTCCCCTAGGCCCCCTACATCT  
ATGCTCTGCTCAGCGGCCCTCTTCTCGCGCCAGGACCCGACCAGCTGGCCCAACATGCCCTTGCTGAAGGCCCTA  
CCGAGGAGGAGTATCAGGCGTTCTCTGCTCTATGCCCGGGGTGTTTACTCCAACATGGGCAACTACAAGTCTTTG  
GTGACACCAAGTTTGTTCACAACTTGCCCAAGGAAAAGCTGGAACGGGTGATCCTAGGAGTGAGGCTGCTCAGC  
AGCACCCAGAAGAAGTCAGGGGCCCTCTGGCAGACTGCGGGGAGCTTATGTTTCTCTCTGAGCCAAAGGCTTCGAC  
ACCTCGGACTGGGGAAGGAGGAATCACCACCTATTCTCTGGGAATTGTACCATGGAAGATGCCAAATTGGCCC  
AGGACTTTCTGGACTCACAGAACCTCAGTGCCCTACAACACCCGGCTCTTCAAAGAGGTGATGGAGAAGGGAAGC  
CCTACTACGAGGTGCGGCTGGCTTCTGTGCTTGGCTCAGAGCCTTCCCTGGACTCTGAGGTGACTTCCAAGCTGA  
AGAGCTATGAATTCCGGGGAAGCCCTTCCAGGTGACCCGGGGGACTACGCGCCCATCTCCAGAAGGTGGTGG  
AGCAGCTGGAGAAGCCAAGGCCATCAGCAGCAACAGCCACAGGGGCGAGATGCTGGCCCAAGTATATAGAGAGCT  
TCACCCAGGGCTCCATCGAGGCCACAGAAGGGGCTCCCGCTTCTGGATCCAGGACAAAGGCCCATCGTGGAGA  
GTTACATCGGGTTTCATCGAGAGCTACCGCGACCCCTTTGGTTCCCGAGGAGAATTTGAAGGTTTCGTAGCTGTGG  
TGAACAAGGCCATGAGTGCCAAGTTTGAGCGGCTGGTGGCGAGCGCAGAGCAGCTGCTGAAGGAGCTGCCCTGGC  
CCCCAACCTTTGAGAAGGACAAGTTCTCTACCCCTGACTTCACCTCCCTGGATGTTCTCACCTTCTCGTGGCTCCG  
GCATCCCTGCCGGCATCAACATCCCCAACTACGATGATCTGAGGCAGACGGAAGGCTTTAAGAACGTGTCGCTGG  
GGAATGTGCTGGCTGTGGCTTACGCCACGCGAGCGGAGAAAGCTTACCCTTCTGAGGAGGATGACAAAGGACCTGT  
ACATCCTCTGGAAGGGGCCCTCCTTCGATGTGCAAGTGGGCTGCACGAGCTGCTGGGCCATGGCAGTGGCAAGC  
TCTTCGTACAGGACGAAAAAGGAGCATTCAACTTTGACCAGGAAACAGTGATCAACCCAGAGACGGGCGAGCAGA  
TTCAGAGCTGGTATCGGAGCGGGAGACCTGGGATAGCAAGTTACGACCACATCGCCTCCAGCTACGAAGAGTGCC  
GGGCTGAGAGCGTGGTCTCTACCTCTGTCTCCACCGCCAAGTGCTGGAGATCTTTGGCTTTGAGGGGCTGATG  
CGGAGGACGTGATCTACGTGAACCTGGCTCAACATGGTTGGGGCCGGGCTGCTCGCTCTGGAGTTCTACACACCTG  
AGGCCTTCAACTGGCGACAGGCCCATATGTCAGGCGCCGGTTTGATGATCTGAGAGATCTTGCTGGAGGCTGGCGAGG  
GACTCGTTACCATCACTCCACCCACAGGCTCCGATGGGCGCCAGATGCCCGGGTCCGCTCCAGCCGAGCAAGA  
TCCGGTCTGTGGGCAAGCCTGCTCTAGAGCGCTTCTTCCGGAGACTTCAGGTGCTGAAGTCCACAGGGGATGTGG  
CCGAGGGCGGGGCCCTGTACGAGGGGATGCAACGGTCACTGATGCGCCCCCGAGTGCTTCTCACCTCAGGG  
ACACGGTGCTGCTGCGTAAGGAATCTCGGAAGCTCATTGTTACGCCCAACATCGCCTTGAAGGCTCAGACGTGC  
AGCTTCTGGAATACGAGGCGTCAGCTGCTGGCCTCATCCGATCCTTCTCTGCGCTTCCAGAGGATGGACCG  
AGTTGGAGGAGATCCTCACACAGCTGGCCACAGCCGATGCCCGATTCTGGAAGGGCCCCAGTGAGGCCCATCTG  
GCCAAGCT**TGA**GGAAGATGTGTGGCCTTGCCCCAATTCCATCAGACCAAGGCTGCAAGTGGCCCTCCATTCTGTG  
TGTTGATTTAGGGCTGGGGAGGGGAGGGGCAAGAGCTTGGACCTTGCTACTACCTCAGCTGAGGCTGGTGACA  
CAACCCCTTCCATTGTGTCAGCACTTTCAGCCTGCCAATTGCTTCCCCTCTGTGATCTCATTTCATCTGCACTGC  
CATACGTGGAGTGAGCAAGACAGGGCTTACCATCTGTCTACAGATGAGGAAATGGCAGTCTTGAGAAGTCACT  
GGTCTAGATCCCGCAGGTGGCAGCTGACAGCTAGGGTTCAAAACGTTCTCCACCAATCCAATGCTCTCACATAT  
TAATTTTATAACCAGACAAATAAATTAGAGACAACCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1004**

MADTQYILPNDIGVSSLDCREAFRLLSPTERLYAYHLSRAAWYGGGLAVLLQTSPEAPYIYALLSRLFRAQDPDQL  
 RQHAAEGLTEEEYQAFLVYAAGVYSNMGNYSFGDTKFVPNLPKEKLERVILGSEAAQQHPPEVRGLWQTCGEL  
 MFSLEPRLRHLGLGKEGITTTFSGNCTMEDAKLAQDFLDSQNL SAYNTRLKFKEVDGEGKPYIEVRLASVLGSEPS  
 LDSEVTSKLKSYEFRGSPFQVTRGDYAPILQKVVEQLEKAKAYAANSHQGQMLAQYIESFTQGSIEAHKRGSRFW  
 IQDKGPIVESYIGFIESYRDPFGSRGEFEGFVAVVNKAMSAKFERLVASAEQLLKELPWPPTFEKDKFLTPDFTS  
 LDVLTFAAGSIPAGINIPNYDDL RQTEGFKNVSLGNVLAVAYATQREKLTFL EEDDDKOLYILWKGPSFDVQVGLH  
 ELLGHGSGKLFVQDEKGA FNFDQETVINPETGEQIQSWYRSGETWDSKFSTIASSYEECRAESVGLYLCLHPQVL  
 EIFGFEGADAEDVIYVNWNLNMVRAGLLALEFYTPFAFNWRQAHMQARFVILRVLLEAGEGLVTITPTTGS DGRPD  
 ARVRLDRSKIRSVGKPALERFLRRLQVLKSTGDVAGGRALYEGYATVTDAPPECFLTLRDTVLLRKESRKLIVQP  
 NTRLEGS DVQLLEYEASAAGLIRSF SERFPEDGPELEEILTQLATADARFWKGPSEAPSGQA

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FIGURE 1005A

CGATAACGATTTGTGTTGTGAGAGCGCGAAGCTGCGATTCTGCTGAACCTTGGAGGCATTCTACGACTTTTCTC  
TCAGCTGAGGCTTTTCCCTCCGACCTCTATGCTCTTCAAATTCGGTGCTCGCCGAGCCGAGCTTGGGCTCCTGAGA  
AATGGATGGTCTTCAACAATCCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGTAATGATGAACACACT  
TCTTATGGAGAAACAGGAGTCCGAGTCTCTCTTCTTGGATGTACCTTCTCTTCTGCTCCCAATTGGAACATGTGTA  
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC  
AAAGAATGGATGGCTCACTGGAATGGCGCTTTTGACCTGGGCTGGGTCTCTGGTGAACCTTAAACTTGTGTACAGCA  
GCAGGTGATCAAAACGCTCAAAATTTGGGACGTAAAGCTGGTGAGCTGATTGGAACATGTGGAACGTCAAAAGTCTCAATGC  
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGGTGGAAGAGATGGCAACATTATG  
GTCTGGGATACCAAGTGCAACAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC  
TCAGACAAGAAACCCCTTCAAAACCCAAGAAGAACAGAAATTCAAAAGGACTTGCTCCTTCTGTGGATTTCAG  
CAAAGTGTTACTGTGGTCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAA  
GTATGGGATTACGTAAAGAAATTAATGCTTATCGACAGAACCCTATAGCATCCAAGTCTTTCTGTACCCAGGT  
AGCAGCACTCGAAAACCTTGGATATTCAGTCTGATTTTGGATTCCACTGGCTACTCTTATTTGCTAATTTGCACA  
GACGATAACATCTACATGTTTAAATATGACTGGGTGGAAGACTTCTCCAGTGGCTATTTTCAAATGGACACCGAAG  
TCTACCTTTTATGTAAAACTCCAGCCTTAGTCCAGATGACCAAGTTTATGTCAGTGGCTCAAGTGTGAAGCTGCC  
TACATATGGAAGGCTCTCACACCTTGGCAACCTCCTACTGTGCTCTGGGTCAATTCAGAGGTCACGCTCTGTG  
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACATACACTAAAAATCTGGCGCTTGAAT  
AGAGGCTTAGAGGAGAAACAGGAGGTGATAAACTTTCCAGGTGGGTGGGCTCTCAGAGAAAAAAGAGTCA  
AGACCTGGGCTAGTAAACAGTAAACAGGTAGCCAGAGTACTCTGTCGAAAGCGCCGAGGTTAAAGTGAATCCATCC  
AATCTTCCCGCTCATCCGAGACTTGTGCCCAAGCTGTGCTGGAGACTCCCTCTTCTTCAAATACTCTCTACG  
TCTCTATTAAACCTCTCTCTGCCAAGGCCGGTCTCCATCAACAGAAGAGGCTGTGCTCTCCCTCGCTCTCTCCC  
AAGCCACCTTCACTTTCAAGATGTGATTAGAAACTGGGTGACCCGAACACCTTCTCTATCACCACCCATCACT  
CCACCTGCTTCGGAGACCAAGATGATGCTCTCGAGAAAGGCCCTTATTTCTGTGAGGACAGAAGTCTTCCCAAGCA  
GAGGCTGTGCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG  
TGTGTGAAGAGTTGTAAGTGTGTGACTGAGCTTGATGGCCAAAGTGAAGAAATTTCAATTGGATCTGTGCTGCCTT  
GCTGGTAACCAAGGAAGACCTTAGTAAGGACTCTCTAGGTCTTACCAAAATCAAGCAAAAATGAAGGAGCTGGTACC  
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTTCTCTTTGAGA  
CCTTGTGGAGAAGGCTGTGAATGGTAGGCAAGAGAAATAGTCTCCCGAGAGAATAAAACCTGGTGTGTGGCCATG  
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTCATCCAGACACCCAATTCAGGAGACAGAGC  
GGAAAGACATTGCCAAGCCCGGTCAACATCACGCCACGCTCCATGAGGAAAAATGTGCACATAGTCTCCATAGAAA  
TCCAGGAGGACTTCTGTGGTCTGAACACTCAACAGAATTAAGATTCTAATCTGAGTGTATTAATCTAGCTTTG  
GTCCACTAAAAACAGCTGAGCTTTGGTCCACTAAAAACAGATGAAAAATCAAGAGTGACTCTATAACTCTGGCT  
TTTAAAGAAAGCTGCCTTTTCAATTTTATAGACAAAATCTTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC  
ATAATGTATATGTCAGCTTCCCGAGGATGAATGCTGTGTTTAAATTTTCAATAAGATAAATTTGTCACCTAGCATTT  
TGAATGAATAGTCTTCACTTTTAAATTTATTCATCTTCTATAAATAGCATCAATGATCTCATGGAGGCAAAAA  
ACAAGTTTCTGTTATCTGAAACTTTCTATGCTCAGTGGAAAGTATCTGCCAGCCACAGCATGAGGCCGTGTGAA  
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCTCTCAACATGTATATTTTATTTGAAATA  
CATAACTCTTTCACTAGCTTTTGTGGGTTTTTTTTAAAGTATGTGTAATAATGATGATGTGCTCAGATGAAGTACAT  
TATATCAGTTCAAGTGTAAATGCACTCTCTTGAGTTAAAGTCACTTTATTTTAAATGCAAGTGAATAATGTCAA  
CTCTTCGGAGAAATAGGAGAACAAACAGAAAGCTGTGTTTGTCTTTTCTCTCAATATATCTCCCGTATG  
AGATTCAGGTCCCCATGTTTTTCCACCAAGCAATCTGCTATGTACAGCAACCAACATCACTTTCTACAGGAGGT  
ATGATTTTGGCCATTACTAGAGGAAGATGTTTTATGAATCAATTTGGGGTTGAATTCAGGTGAGTCATCAG  
TTCCTTAGGGGTGCAATGTTTTAAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATGTAT  
ATTTTGTAAACAGAATATAGCTTTAACTGAAAAATCCAGAACCAGAAACATAAATCTTGAGTTTCTTTTACAGTGA  
CATAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGGCCAAAAAGTAAATGAATTTTCTTAGATATTTAATA  
CAGAGAGTGTATAGACTGACTTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCTTATTCAACAAAT  
ATGTATCAGTGATCTTGAACCATTTGTTTTATTTTCCACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT  
TCTATGACTATTACTTAGAAGGAGCCCTTCCAGTCAATGAACTTCATTTGTTTTATCCATATCCCTGAGG

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**FIGURE 1005B**

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGITTTTTGTCATTATTTGAAAACTATTCTGACA  
ACTTTTTAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAAGCTGAAATTGCATGGATCAAGTAAGCATAGTTTT  
ATCCAGGGAGAAAAATAAAGGAAGCCATAGAATTGCTCTGGTCAAAACCAAGCACACCATAGCCTTAACTGAAT  
ATTTAGGAAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTTTTTGACTGTTGGGCTTTGGGAAGATGTTATTT  
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAATCCATGAAAA  
AAAAAAGATTGATAAAGTAGATGATTTTGTGTTATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG  
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAGCTAGTACTTTTA  
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG  
AATAATAAGCCTTTTACCTT

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**FIGURE 1006**

MLFNSVLRQPQLGVLNRNGWSSQYPLQSLTGYQCSGNDHTSYGETGVVPVPPFGCTFSSAPNMEHVLAVANEEGF  
VRLYNTESQSFRKKCFKEWMAHWNVDFLAWVP GELKLVTAGDQTAKFWDVKAGELIGTCKGHQC SLKSVAFSK  
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNI SGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ  
DENTLVSAGAVDGI IKVWDLRKNYTA YRQEP IASKSFLYPGSSSTRKLGYSS LILDSTGSTLFANCTDDNIYMFNM  
TGLKTS PVAIFNGHQNSTFYVKSSLS PDDQFLVSGSSDEAAY IWKVSTPWQPPTVLLGHSQEVTSVCWCPSDFTK  
IATCSDDNTLKIWRNLNRGLEEKPGGDKLSTVGWASQKKKESRPGLVITVTS SQSTPAKAPRVKCNPSNNSPSSAAC  
APSCAGDLP LPSNTPTFSIKTSPAKARSPINRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPITPPASETKIM  
SPRKALIPVSQKSSQAEACSESRNRVRRLDSSCLESVKQKCVKSCNCVTELDQVENLHLDLCCLAGNQEDLSK  
DSLGP T KSSKIEGAGTISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENS SPENKNWLLAMAARKKAENP  
SPRSPSSQT PNSRRQSGKTLPSPTIITPSSMRKICITYFHRKSQEDFCGPEHSTEL

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**FIGURE 1007**

GCACGAGGGAAGAGGGTGATCCGACCCGGGGAAGGTCGTGGGCAGGGCGAGTTGGGAAAGCGGCAGCCCCGCC  
GCCCCCGCAGCCCCCTTCTCCTCCTTTCTCCACGTCTATCTGCCTCTCGCTGGAGGCCAGGCCGTGCAGCATCG  
AAGACAGGAGGAACTGGAGCCTCATTGGCCGGCCCGGGCGCCGGCCTCGGGCTTAAATAGGAGCTCCGGGCTCT  
GGCTGGGACCCGACCGCTGCCGGCGCGCTCCCGCTGCTCCTGCCGGGTGATGGGAAAACCCCGACCCGGCCGCG  
CCCTGGGCAAGGCCCTCTGCGCTCTCCTCTGGCCACTCTCGGCGCCCGCGGCCAGCCTCTTGGGGGAGAGTCCA  
TCTGTTCCGCCAGAGCCCCGGCCAAATACAGCATCACCTTCACGGGCAAGTGGAGCCAGACGGCCTTCCCCAAGC  
AGTACCCCTGTTCCGCCCCCCCTGCGCAGTGGTCTTTCGCTGCTGGGGGCCGCGCATAGCTCCGACTACAGCATGT  
GGAGGAAGAACCAGTACGTACGTACGTAAACGGGCTGCGCGACTTTGCGGAGCGCGCGAGGGCTGGCGCTGATGAAGG  
AGATCGAGGCGCGGGGGAGGCGCTGCAGAGCGTGCACGCGGTGTTTTGCGCGCCCGCGCTCCCCAGCGGCACCG  
GGCAGACGTCGCGCGAGCTGGAGGTGCAGCGCAGGCACTCGCTGGTCTCGTTTGTGGTGCGCATCGTGCCAGCC  
CCGACTGGTTCGTGGGCTGGACAGCCTGGACCTGTGCGACGGGGACCGTTGGCGGGAACAGGCGGGCTGGACC  
TGTAACCCCTACGACGCGGGACGGACAGCGGCTTACCTTCTCCTCCCCAACTTCGCGACCATCCCCGAGACA  
CGGTGACCGAGATAACGTCTCCTCTCCAGCCACCCGGCCAACTCCTTCTACTACCCGGGCTGAAGGCCCTGC  
CTCCCATCGCCAGGGTGACACTGGTGC GGCTGCGACAGAGCCCCAGGGCTTCATCCCTCCCGCCCCAGTCTCTGC  
CCAGCAGGGACAATGAGATTGTAGACAGCGCCTCAGTTCCAGAAACGCCGCTGGACTGCGAGGTCTCCCTGTGGT  
CGTCTCGGGGACTGTGCGGAGGCCATGTGGGAGGCTCGGGACCAAGAGCAGGACTCGCTACGTCCGGGTCCAGC  
CCGCCAACACGGGAGCCCTGCCCGAGCTCGAAGAAGAGGCTGAGTGCCTCCCTGATAACTGCGTCATAAGACC  
AGAGCCCCGCAGCCCCCTGGGGCCCCGGAGCCATGGGGTGTGCGGGGCTCCTGTGCAGGCTCATGCTGCAGGCGG  
CCGAGGCACAGGGGGTTTCGCGCTGCTCCTGACCGGGTGAGGCGCGCGCACCATCTCTGCACTGAAGGGCCCT  
CTGGTGGCGGCGACGGGCAATTGGGAAACAGCCTCCTCCTTTCCCAACCTTGCTTCTTAGGGGCCCCGTGTCCCG  
TCTGCTCTCAGCCTCCTCCTCTGCAGGATAAAGTCATCCCCAAGGCTCCAGCTACTCTAAATTATGGTCTCCTT  
ATAAGTTATTGTGCTCCAGGAGATTGTCTTCATCGTCACGGGGCTGGCTCCCAGTGGTTGCAGATACCTCA  
GACCTGGTGTCTTAGGCTGTGCTGAGCCACTCTCCCGAGGGCGCATCCAAGCGGGGCCACTTGAGAAGTGAAT  
AAATGGGGCGGTTTCGGAAGCGTCAGTGTTTCCATGTTATGGATCTCTGCGTTTGAATAAAGACTATCTCTGT  
TGCTCAC

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**FIGURE 1008**

MENPSPAALGKALCALLLATLGAAGQPLGGESICSARAPAKYSITFTGKWSQTAFPKQYPLFRPPAQWSSLLGA  
AHSSDYSMWRKNQYVSNGLRDFAEERGEAWALMKEIEAAGEALQSVHAVFSAPAVPSGTGQTSAELEVQRRHSLVS  
FVVRIVSPDWFGVDSLDLCDGDRWREQAALDLYPYDAGTDSGFTFSSPNFATIPQDTVTEITSSSPSHPANSE  
YYPRLKALPP IARVTLVRLRQSPRAFI PPAPVLP SRDNEIVDSASVPETPLDCEVSLWSSWGLCGGHCGR LGTKS  
RIRYVRVQPANNGSPCPELEEEAECPDNCV

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**FIGURE 1009**

GCTGGAGCCGGGCCGGGGCCATGTGGAGCGCGGGCCGCGGGGCTGCCTGGCCGGTGTCTGTTGGGGCTGCTGC  
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGTGAAGC  
TGCTCAATACGCACCACCGCTGCGGCTGCACCTGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG  
TGACCGGCGTAGAGGCGTCGGACGACGCGAATAGCTACTGGCGGATCCGCGGCGCTCGGAGGGCGGGTGCCCGT  
GCGGGTCCCCGGTGCCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC  
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCAGGGCCAGCACTGGACC  
TATGGACAGTGCCTGCTCTGGACAGCACATGGGAGCGTGAGGCTGCTGTGCGCTTACAGCATGTGGGCACCTCTG  
TGTTCTGTCTAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCAGTG  
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG  
ATGAACCTTGAGTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG  
AGACTTTGGGTTTGTAGGGGTCTCAAGTGCCCTTTGTGATTAAAGAAATGTTGGTCTATGA



**FIGURE 1010**

MWSAGRGGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYSGSGQQSVTGVEAS  
DDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSNNQEVSAF'GEDGEGDDLDLWTVRCS  
GQHWEREAAVRLQHVGTSVFLSVTGEQYGSPIRGQHEVHGMP SANTHNTWKAMEGIFIKPSVEPSAGHDEL

**FIGURE 1011**

ACCTCCGGAACCGTAGATTCCGGGCGGTCGGAGCCGCGGGAGCTGTAGTTCTCCCGGGCTCAGAGAAGTAGG  
CAGAGAGCGGACCTGGCGGCCGGGCAGCA**ATCG**CGGGGCTGGAGCTCTTGTCCGACCAGGGCTACCGGGTGGACGG  
GCGGCGCGCCGGGGAGCTGCGCAAGATCCAGGCGCGGATGGGCGTGTTCGCGCAGGCTGACGGCTCGGCCTACAT  
TGAGCAGGGCAACACCAAGGCACTGGCTGTGGTCTACGGCCCGCACGAGATCCGGGGCTCCCGGGCTCGAGCCCT  
GCCGGACAGGGCCCTAGTGAAGTGTCAATATAGTTACGCGACCTTCAGCACAGGTGAGCGCAAGCGACGGCCACA  
TGGGGACCGTAAGTCTGTGAGATGGGCCTGCAGCTCCGCCAGACTTTCGAAGCAGCCATCCTCACACAGCTGCA  
CCCACGCTCCAGATTGATATCTATGTGCAGGTGCTACAGGCAGATGGTGGGACCTATGCAGCTTGTGTGAATGC  
AGCCACGCTGGCAGTGCTGGATGCCGGGATACCCATGAGAGACTTTGTGTGTGCGTGCTCAGCTGGCTTCGTGGA  
CGGCACAGCCCTGGCGGACCTCAGCCATGTGGAGGAAGCAGCTGGTGGCCCCAGCTGGCCCTGGCCCTGCTGCC  
AGCCTCAGGACAGATTGCGCTGCTTGAGATGGATGCCCGGCTGCACGAGGACCACCTGGAGCGGGTGTGGAGGC  
TGCTGCCAGGCTGCCCGAGATGTGCACCCCTCTTAGATCGAGTGGTCCGGCAGCATGTGCGTGAGGCCTCTAT  
CTTGCTGGGGGACT**GACC**ACCCAGCCACCCATGTCCAGAATAAACCTCCTTGCCACACAXXXXXXXXXX

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**FIGURE 1012**

MAGLELLSDQGYRVDGRRAGELRKIQARMGVFAQADGSAYIEQGNTKALAVVYGPHEIRGSRARALPDRA LVNCQ  
YSSATFSTGERKRRPHGDRKSCEMGLQRQTFEAAILTQLHPRSQID IYVQVLQADGGTYAACVNAATLAVLDAG  
IPMRDFVCACSAGFVDGTALADLSHVEEAAGGPQLALALLPASGQIALLEMDARLHEDHLERVLEAAAQAARDVH  
TLDRVVRQHVREASILLGD

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**FIGURE 1013**

CCGCTTCCCGCTCTTGACACCCCTAACTCCTGAGGCTCCTCGAATCACGCGAGTGGAAAGCGGAGAAGCTCAAG  
TGGCCGCCA**ATGC**TCAGAGGCTTATTTCAGAGTGGAGTCGGGTGCGCTGGGGCTGAGGAGAACTTTCTTTCTTTGG  
ACGACATCTCTGATGTCCACAGAGAAGCTGCCGGTGGCACGGAGACCGCATGCTCTCGCTTGGCGCTTTCTTCC  
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCACAGGGTTCCAAGCTTGAATACCCCTTGCGCTGG  
CAAAAGGACTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACCTCCCAAGATCTACCAAGAGGGTTGGAGGA  
CTGTGTTCAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTCTACGGGTTTGGCTCCCAGC  
TCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTCGGC  
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA  
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAGTGTGGGAGAAGGGCAGGCTTCTCAGATCA  
CAGCTTCCAACCTCGTTCAGAATTACAAGAAGAGAAAATTCAGTGATATGGAAAGCT**CGA**AAGCCGGAAGAACACA  
GAATGGCTCCTCACAGACGTATCCCTCCGTGTCTCTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC  
TGTCCCATTTTCATGGCTTATTTCTGTGGCCATAGAGAATTATAGGGAACCTGGACATGCTGGAGGATGTGGGTGT  
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCACCCCTGCTGACCCACAGCCCGGCCCTTTAACCCAAGAACCCA  
TGGCCAAGGAGAAATCAAAGTCTTCTCTAAATAAGAAATCACTGCCATATAATATATACAGTAGAGTTGCAACTG  
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCAGGTAACAACTG  
GGTCATCGCTGTTCACAAAATGCTCTTGTATCTTATTTGCCTCATCTTCTCATGGTTGTACAGAGGATAGCA  
CCCCACCATGCCAGCCTGACTTGGAGATATCTCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAAACA  
GTCGCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAGAGAAAAGATGTTGCCCTC  
ATACTCTATACTCAGGGCTTAATGAACCTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAATGGTTAAAC  
TGAGCTTGTATTGCTCGGAGAGCCTAAGAGCACCCGCACACTTAATCTACTCCCTGTCTAGAAAAGCTGTCA  
GGGAGTCTGTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT  
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAAATGGGCAAGAGCCCTCCGTTGTG  
CTTTTTTTTCTCTTCAGTAACTTTTGCAACATTATTCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT  
TAAGCAAGCACTAATCTCTTTCTCGGAGATCAAGGATGCAACCTCAGGTTGAGAAAAGAACAGGGTTCCCTGGG  
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATGTCTTTGTCTTTG  
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA  
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTATAATTGATTTTGTAGTCTAAATAAATG  
ATTGGCTTTGTACATGAATATGTCTGTACAAGTGCTCTTCACTAGTACTACAGATAATCAAAGCTATCAGAAAT  
TGTGCTTTGTATCATATTTGACGGTAATACACAAATAAATCCATGTTTATAGCAAAAAAAAAAAAAAAAAAAAAA

A

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**FIGURE 1014**

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPPQGSKLELPLWLAKG  
LFDNKRRIILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLLQTFIGRFRIM  
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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**FIGURE 1015**

GGCACGAGGGCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTGATGTCGGTGTGTGAGGCCCTGGACAAGCTGC  
CCGGCCTGAACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGC  
TCAAAGAGGACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGC  
CCCGAATTGACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGC  
GCCATGTGGATGCCAGCTTCTTCTGGGGAAGGTGTGTTTCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCA  
GCATTACCGGCACACCGTGGTGAAGCTGGCCCAACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGG  
AAGGCTTTAGGGCCACCATGGCGCAGCGCCTGGTGGCGTGTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCT  
CAGCTCTGAACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCCTCCCTGGAGGACCTGTGAGGGTGGCTGGCCC  
CTGGGCTGCCCCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGA  
CAGGCCCAGGCTCAGCCGCGCGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGTGCAGCAGGGAGAGCTGGGCAG  
AAGCAGCGAGGGGGCCACAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACTCACTCTTGCAGAGCCTGTGTC  
TTTAAGCAGCTGGCGTGTACATCTCCATTAAAGGTTTCCTTTGAACAAAAGGCTGTGGCTAAAAAAGTTTAA  
AAATCAAAAAAAAAAAAAAAAAA

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**FIGURE 1016**

MSVLRPLDKLPGLNTATILLVGTE DALLOQLADSM LKEDCASELKVHLAKSLPLPSSVNRPRIDLIVFV VNLHSHK  
YSLQNT EESLRHVDASFFLGKVCFLATGAGRESHCS IHRHTVVVKLAHTYQSPLLYCDLEVEGPRATMAQRLVRVL  
QICAGHVP GVSALNLLSLLRSSEGPSLEDL

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**FIGURE 1017**

GGGAGTAGGAGGTGTGACCGGAGGGCGAAATTGGGGCTTCCTCTGCTCTGGTGACCCAGAACCCTCAACTGAAAT  
GACCCCTGTCTGTGTAGTACTCCGGCAGGATGGGCCCTCGGAGCGTAAAGGCGGCAAAAAACAAAATATTAATAAAAA  
AGGAGAGAGGGGCAAAAAAAGAAAAACCCGAAAGTTTCAGCTGCATTGCTGCGGAACGTTTTTTAGCCAGAAGGC  
GAAAGAAGAAATCGGAAGTGACGCTCGCGGCCAAAAACAAGCCCGGGCTTGGAGGCCGTGACTGAAGCTGGCCTCAG  
ATGGGAAGGCCCGACTCGCTGTCTGTCTGTCTGCTCGGTGGTCCGAGACCTTGCACTCTCACCGGGTGGGCTCCAG  
CCCCGTGTCCCGGGATCCGCTCGCCCGGGATGAGCGAGAGTTTCTTCTGGGACTTTTCGGGCACAGCTGGCCGG  
TGGCGACAGAACGGACTTTCTTTCTGCAAGAGTCTCCCTCCAGCGGGAGACAGCGGGCTCCTGTCTCGGGACG  
CTGGGACACCTGTGCGCTATTTTTAAATATCCAGATTCCAAGAACACACTGGATACTGCTCTTACAAAACCAAGA  
GGAAATCATGAAGAAATTTTTAGTTATTGAAACTACAGTTGAAATCATGAGATACATCAACAAATCTGGATATTG  
GAGCCCGACTTATCGTGAAGAGTGTCCAGCACTTATAGCCTAACTGGCATGCCAGACATTAATAATAGAACATC  
CACTGGACCCAAATTCAGAAGAAGGGTCAGCTCAGGGTGTGCCATGGGAATGAAATTCATATTGCCTAACCGAT  
TTGATATGAATGTGTGTTCTCGATTGTGAAGTCTTAAATGAAGAAGATAGTAAAAATATTCAAGATCAGGTTA  
ACTCTGACCTGGAGGTGGCATCTGTCTATTAAAGCTGAATGCAATATCCATACATCTCCTTCCGGGAATTC  
AAGTAAGGCATGTCTACACCCCTCTACAACAAAGCATTCTCACCCATAAAACAGTCAACCACTTTAACCAACA  
AACACAGAGGAAATGAGGTCTCTACCACACCTCTGTTAGCAAAATCTTTGTCTGTTACCAGTTGGCTGCTCAGG  
GAGAGATGCTCTATCTGGCTACTCGTATCGAACAAGAAAATGTTATCAATCACACGGATGAAGAAGGATTTACTC  
CTCTGATGTGGGCTGCGACACACGGGCAATAGCTGTGGTAGAGTTCCTACTTCAGAATGGTGCTGATCCCCAAC  
TTTTAGGAAAAGTCTGAGAAAGTGCCTGTCTGTTGGCCTGTAGTAAAGGCTACACAGATATTGTCAAAATGCTGC  
TTGATTGTGGAGTTGATGTAATGAATATGATTGGAATGGAGGAACACCTCTGCTTTATGCTGTACATGGAATC  
ATGTGAAATGTGTAAGAATGCTCTTAGAAAGTGGGCTGATCCAAACAAATGAAACTGACTCTGGATATAATTCTA  
TGGATCTAGCTGTAGCCCTAGGCTATAGAAGTGTTCACAGGTTATTGAGTCACATTTGTTGAAGCTGCTTCAAA  
ATATCAAGGAGTAGACACAGTCATCAGAAAATGTCTGCCCTTTTGTTACTTCTTGTGCTTTATAAATGATAGTT  
TTGTTTACTTATAAATTTTACCCTCAGTTGCAATATTACTGGTTTTTAGTAGGTTTTATAAATATTCTCTGA  
GTAATTCAGTGGTTTTATAATAATGTAATACCTCTTTTATAACTATGTTTTACTGTATATTAAATTTATAAAT  
AATGTTTTCTGTGGCATGTAAATTTTATGGTACAGATAGTTATCATCAGTCTTTGTATCAAGTGCTGTAAATTTGA  
CATTTTCAGAAATTATTCTACCCTAGTCATCTTCACTCGTGTATTAAAGTCATTCTTTATATAGGGTTGCTAT  
AAATCCCTAGAAAAAATTTGTTCTATTGTTGAATTAAGAGTGCACAGTGTGATTTTACAAAATGATATTAT  
AAATAAATAAAATACTTCTTCTG



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**FIGURE 1018**

MDTSTNLDIGAQLIVEECPSTYSLTGMPDIKIEHPLDPNSEEGSAQGVAMGMKFILPNRFDMNVCSRFBVKSLSNEE  
DSKNIQDQVNSDLEVASVLFKAECNIHTSPSPGIQVRHVYTPSTTKHFSPIKQSTTLTNKHRGNEVSTPLLANS  
LSVHQLAAQGEMLYLATRIEQENVINHTDEEGFTPLMWAAAHGQIAVVEFLLQNGADPQLLGKGRESALSLACSK  
GYTDIVKMLLDCGVDVNEYDWNNGGTPLLYAVHGNHVKCVKMLESADPTTIETDSGYNSMDLAVALGYRSVQQVI  
ESHLLKLLQNIKE

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FIGURE 1019A

ATCCTTGGCCGCCGCCGCCGCCGCCGCCGCTCCGGAGCCGCTGGGCATGAGCCGTGGAAGCAGTGCGCCGCGT  
GGCTCATCCATTGCAAGGTGCTGCCACCAACCACCGGGTGACTGGGACTCGGCTCAGGTGTTTCGACCTTGCCG  
AGACCTCTCGCGATGGAGTCTCTGCTCGCCAGCTGCTTAACAACCTCGCGGCCCATCCATCAACCTGAAGGAGA  
TCAACCTAGGCCCGCAGATGCTCCGAGTTTCTGCTGTTTGAAGAACATAAGGACATTTCTACGCCCTGTTGTGAGA  
CGTTTGGAAATGAGGAAAAGTGAACCTTTTCGAGGCATTGACTTGTGTTGATGTTTCGTGACTTTGGAAGGTTATAG  
AAACATTATCAGCACTTTCTCGAACACCTATAGCATTTGGCCACAGGAATCAGGCCCTTTCCCAACAGGAAGAAGA  
TTAATGATGAAGACATCTACAAAGGCCCTCCTGATTTAATAGATGAACCATCTTGTGGAAGTGAAGAAGATCTCT  
ATGACTGTGTTTATGGGGAAGATGAAGGTGGAGAAGTCTATGAGGACTTAATGAAGGCAGAGGAAGCACATCAGC  
CCAAATGTCGCAAAAATGATATACGAAGTTGTTGTCTAGCAGAAAATTAAGCAGACAGAAAGAAAAATATACAGAAA  
CTTTGGAGTCAATAGAAAAGTATTTCATGGCACCCTAAAAAGATTCTGACAGCAGCAGAAATTGATTTCAGTAT  
TCATCAACATTCCTGAACTTGTAAACCTTCATCGGAACCTAATGCAAGAGATTTCATGATCCATTGTAAATAAAA  
ATGACCAGAACTTGTACCAAGTTTTTATTAACATAAGGAAAGATTGGTTATTTACGGGCAGTACTGCACTGGAG  
TGGAGTCAGCCATCTCTAGTTTAGACTACATTTCTAAGTCAAAAGAGAGATGTCAAACTGAAATTAGAGGAATGTT  
CCAAAAGAGCAAATAATGGGAAATTTACTCTTCGAGACTTGCTTGTGGTTCCATGCAACGTGTTTTAAAGTACC  
ACCTTTCTCCAGGAAGCTGGTCAACATACCCTGATCCGACTGAGAAGGCAAAATCTGAACTGGCTCTGTGATG  
CTTGAAGGACTTTGGCAACAATGTGAATGAAGTGAAGAGATATGAGACCTTCGTGAAATTAACAGCTTTTC  
AGCTATCTATAGAGAATTTGAACCAACAGTTTTGCTTTTGGACGACCTCAGGGAGATGGTGAAATTCGAATAA  
CCACTCTAGACAAGCATACCAAGCAAGAAGGCATATCTCTATTGATTTGGCAGTGATCGTATGTAAGAGAA  
AAGGTGATAACTATGAAATGAAGGAAATAATAGATCTTCAGCAGTACAAGATAGCCAAATAATCTTACAACCGATA  
AAGAAAACAAAAGTGGCTTATGGCTCTACCTCATCCATACCAAGGACAAAATGGGTTAGAATTTTATGCA  
AAACAAAAGATTTAAGAAGAAATGGCTAGAACAGTTTGAATGGCTTTGTCTAACATAAGACCAGACTATGCAG  
ACTCCAATTTCCAGGACTTCAAGATGCATACCTTCACTCGAGTCACATCTCGAAAGTCTGCCAGATGCTCTGA  
GGGGAACATTTATCAAGGCTATTTATGTTTAAAGTGTGGAGCGAGAGACACAAAGAAATGTTTGGGAAAGAGTAG  
ACAATTTGTGGCAGAGTTAATCTTGTGTGAACAAGGGACACTCAAACTACACAGAAAGCCGCAATGGACTGCGAA  
GAATCTCTAAACAGGTGGATCCAGGTTTACCAAAAGATGCAGGTCATTAGGAACATTTCTGGAACACCCACCCAG  
CTCTGCATGAAGGACCCCTTTACAGCTCCAGGCCGGGGATACCGTTGAACCTCTGAAAGGAGATGCACACAGTC  
TGTTTTGGCAGGGCAGAAATTTAGCATCTGGAGAGGTTGGATTTTTCCAAGTGATGCAGTCAAGCCTTGCCCAT  
GTGTGCCCAAACAGTAGATTATCTTGCCAACCCCTGGTATGCTGGAGCAATGGAAGGATTGCAAGCAGAGACGC  
AACTTATTAATAGGGTAAATAGTACTTACCTTGTGAGGCACAGGACCAAGAGTCAGGAGAATAGCAATTAGCA  
TTAAGTACAATAAGCAAGAGCACATCAAGATTTTAACAAGAGATGGCTTTTTTCACATTTCAGCAAAATAGAA  
AATTTAAAGGTTTAATGGAACCTGTGGAGTACTACAAGCATCATTTCTCTCAAGGAAGGGTTTCAGAAGCTTAGATA  
CAACTCTGAGTTTCCATCAAGGAGCCGAGAACATTCAGCTGGACAGAGGGGTAAATAGAGCAGGCAACAGCTTGT  
TAAGTCCAAAAGTGTGGGCATTGCCATCGCTCGGTATGACTTCTGTGCAAGAGATATGAGAGAGTTGTCTTGT  
TGAAAGGAGATGTGGTGAAGATTACAAAAGATGAGTGCAAATGGCTGGTGGAGAGGAGAAGTAAATGGCAGGG  
TGGCGTGGTTTCCATGCACATATGTGGAAGAGGATGAATAAATTCAAATCCCAATCGCTTGTGCAACCTGCACCAAAAT  
TTCAGAGAAGGGATAAATAGAAGCCTGCACAGCATCGTGAATTAACGAAAGTGTAAAAAGCTGCATTTCTGGC  
TGTTCAACATCTCCCTCCTTGGCCCCCTTAAGCTTTAATGCTGAGATTTCTCAAAGATGCTGGTACTGACAGAT  
TAATGGCTTGCCCTAGAGCTGTGCAAGAAACAGCCTGCCAGTCTGCGATTGTCAATGGACAGGACGCAAAACGAAG  
CTGTTCTTCCAGAGAAGCCCTGCAAAACATTTGGTTCTGTGCTTCCCTTTACTTCTTCTGGTCAGATACCATGAA  
TGCCAGTCATCAGTAAATCTTAATACACTTTTGCTTTATTTCTCACATGCCATTCACAGATATTGTTGATGTTACA  
AAGAAGCAGAAAGTGTAATTTTCTTTTCCAGCATGACGAAAAATGGAGTTCTGCGATTGTGACAGCTTACTGG  
AAAGATCCAGCCTTACTTGTCTTAATTTGTCCAACAAGGTGACTCATTGCCCCGCAACACATTTTACCCTCAGAT  
GTTACTCATGATATTAAAAATATGAGGCCAGTGCTCAGGTTTGCATCATAAAGTGAGTATCCCTGAAGGTTTT  
AATTACTTATTTGGTGGCTGATTATATTGCAAACTTTTATAAAGGTGAAAAAAGCACACAAAAGAGAGGG  
TGTCTTCATATTAACCTTCAACACTTCATGATTTTCATAGGATTTTGGAAATATGCTCATGCTTGCATTTATGA  
AAGGATCTGGGCTAGGTATATTAGGGGTAGTTGCCAATAACCTGAAGAAGTGGCAATTTGTACAGAAACAGATG  
AAGGGCTATAATTTATGTCATTTTATAGCAGCAGTATCTATTAAATACATGCCTTTTCTCCCATCCACCTCCCC  
GCACACACACAAGATGACCTGGGACATGATTTTTTATTCCACATTTTCTTGAGCACAACAACTTTTGTGA

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**FIGURE 1019B**

GGATTTTGGAAAGGAAAGCACAACTGGGTCCTTTATTCATTTCTGGGACAGAAAGAGGGTCAGTGGACCTTTTGTGG  
GCCTCCAGCTTCTCTCAGAGTCTCCCCCTCTGCAGCCATCCTGGGAGTGATTAAGTGGAGGGAAGATGGGTCT  
TGCAGTACATTGTTTTTGCCAGCCATCACTCTTTTTTGTGAGGAGCCTAAATACATTCTTCCTGGGGTCCAGAG  
TCCCAATCAAGGCAGTCAAGTTAAGACACTAACTTGGCCCTTTCTGATGGAAATATTTCCCTCCATAGCAGAAG  
TTGTGTTCTGACAAGACTGAGAGAGTTACATGTTGGGAAAAAAGAAGCATTAACTTAGTAGAACTGAACCAGG  
AGCATTAAGTTCTGAAATTTTGAATCATCTCTGAAATGAAGCAGGTGTAGCCTGCCCTCTCATCAATCCGCTCTGG  
GTGCCAGAACTCAAGGTTTCAGTGGACACATCCCCCTGTTAGAGACCCCTCATGGGCTAGGACTTTTCATCTAGGAT  
AGATTCAGACCTTTACCTCAGAATTATGTAAACTGTGATTGTGTTTTAGAAAAATTATTATTGCTAAACCAT  
TTAAGTCTTTGTATATGTGTAATGATCACAAAAATGTATTTTATAAAATGTTCTGTACAATAAAGTTACACCTC  
AAAGTGTA CTCTTGGAAATGGATTCTTTCCCTGTAAAGTCTTATCTGCGACTCTGTCTCGGGAATGTTTTGTCTGTT  
GCCGTGAGCCGAACCTTTGTTATGGAGGAGCAGCCTCACACAAGCAGAAACACTCCTGTGGATGGTATTGTAGCA  
TGTATTGTTTATTTTAGTCAATAGACCCTCTCCTTATAAAATGGTGTTTAGTCTTCTGTTCGATTTCATGGGCCT  
GGGGGTTTTCTAGCAGAGGATATTGGAGCCCTTTTTGTGACATTACCAATTACATCTTTGTCCACGTTTAAATAC  
TTTGTTTTGGAAAAATTTAAATGCTGCAGATTTGTGTAGAGTTCTAATACCAAGACAGAAGTAAATGTTTTCCAT  
ATACTTTGTCTTGCCGTGATGCAGCCCTTGTGTAATATGGTGAATTAGAGTGGTATTTCACTTTGTATTATTTTG  
TAAATATGTCAATATAATAAATAGTGACTAAAAAAAAAAAAA

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**FIGURE 1020**

MEPWKQCAQWLIHCKVLPTNHRVTWDSAQVFDLAQTLRDGVLLCQLLNNLRAHSINLKEINLRPQMSQFLCLKNI  
RTFLTACCETFGMRKSELF EAFDLFDVRDFGKVIETLSRLSRTPIALATGIRFPFTEESINDEDIYKGLPDLIDE  
TLVEDEEDLYDCVYGEDEGGEVYEDLMKAEAAHQPKCPENDIRSCCLAEIKQTEEKYTETLESIEKYFMAPLKRF  
LTAAEFDSVF INIPELVKLHRNLMQEIHDSIVNKNQNLQYQVFINYKERLVIYGQYCSGVESAISSLDYISKSKE  
DVKCLKLEEC SKRANNGKFTLRDLLVVPQVRVLYHLLQELVKHTTDPTEKANLKLALDAMKDLAQYVNEVKRDN  
ETLREIKQFQLSIENLNQPVLLFGRPQGDGEIRITTLDKHTKQERHIFLFDLAVIVCKRKGDNYEMKEIIDLQQY  
KIANNPTTDKENKKWSYGFYLIHTQGQNGLEFYCKTKDLKKKWLEQFEMALSNIRPDYADSNFHFDMHTFTRVT  
SCKVCQMLLRGTFYQGYLCFCGARAHKECLGRVNDNCGRVNSGEQGILKLPEKRTNGLRRTPKQVDPGLPKMQVI  
RNYSGTPPPALHEGPPLQLQAGDTVELLKGDHSLFWQGRNLASGEVGFPPSDAVKPCPCVPKPVDSQCPWYAG  
AMERLQAE TELINRVNSTYLVRHRTKESGEYAIISIKYNNEAKHIKILTRDGGFFHIAENRKFKSLMELVEYYKHHS  
LKEGFRITLDTTLQFPYKEPEHSAGQRGNRAGNSLLSPKVLGIAIARYDFCARDMRELSLLKGDVVKIYTKMSANG  
WWRGEVNGRVGWFPSTYVEEDE

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**FIGURE 1021**

[illegible]

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**FIGURE 1022**

MKTS DIKELNIVLPEFEKTHLEHQRIESKVCKAAIATFYVNVKEQFIKMLKESQMLTNLKRKNAKMISDIEKKR  
QRMIEVQDELLRLEPQLKQLTKYDELKERKSSLRNAAFYFLSNLKQLYQDYSQVQAQEPNVKETYDSSSLPALLF  
KARTLLGAESHLRNINHQLEKLLDQG

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**FIGURE 1023**

**ATG**TGGGGCGGCACGGCGGGCGGGCTGCCCGGGAACTGCGGCGCGGCGGGAGGCGCTGTTGGTGCTCCTG  
GCGCTACTGGCCTTGGCCGGGCTGGGCTCGGTGCTGCGGGCGCAGCGTGGGGCCGGGGCCGGGGCTGCCGAGCCG  
GGACCCCGCGCACCCCGCGCCCGGGCGGGCGGAGCCGGTCTATGCCGCGGCCCGGCTGCCGCCAACCGCGCTG  
GGCGCGCGGGCGAGGCGGTGCGGCTGCAGCTGCAGGGCGAGGAGCTGCGGCTGCAGGAGGAGAGCGTGCGGCTG  
CACCAGATTAACATCTACCTCAGCGACCCGATCTCACTGCACCGCGCGCTGCCCGTGCGCTGGAACCCGCTGTGC  
AAAGAGAAGAAATATGATTATGATAATTTGCCCAGGACATCTGTTATCATAGCATTTTATAATGAAGCCTGGTCA  
ACTCTCCTTCGGACAGTTTACAGTGTCCCTTGAGACATCCCGGATATCCTGCTAGAAGAAGTGATCCTTGTAGAT  
GACTACAGTGATAGAGAGCACCTGAAGGAGCGCTTGGCCAATGAGCTTTCGGGACTGCCCAAGGTGCGCCTGATC  
CGCGCCAACAAGAGAGAGGGCCTGGTGCGAGCCCGGCTGCTGGGGGCGTCTCGCGCGAGGGGCGATGTTCTGACC  
TTCTTGGA CTGTACTGTGAGTGCCACGAAGGGTGGCTGGAGCCGCTGCTGCAGAGGATCCATGAAGAGGAGTCG  
GCACTGGTGTGCCCGTGATTGATGTGATCGACTGGAACACCTTCGAATACCTGGGGAACCTCCGGGAGCCCCAG  
ATCGGCGGTTTCGACTGGAGGCTGGTGTTCACGTGGCACAGTTCCTGAGAGGGAGAGGATACGGATGCAATCC  
CCCGTCGATGTCACTCAGGTCTCCAACAATGGCTGGTGGGCTGTTTGCTGTGAGTAAGAAATATTTGAATATCTG  
GGGTCTTATGATACAGGAATGGAAGTTTGGGGAGGAGAAAACCTCGAATTTTCCTTTAGGATCTGGCAGTGTGGT  
GGGGTTCTGGAAACACACCCATGTTCCCATGTTGGCCATGTTTTCCCAAGCAAGCTCCCTACTCCCGCAACAAG  
GCTCTGGCCAACAGTGTTTCGTGCAGCTGAAGTATGGATGGATGAATTTAAAGAGCTCTACTACCATCGCAACCCC  
CGTGCCCGCTTGGAACTTTTGGGGATGTGACAGAGAGGAAGCAGCTCCGGGACAAGCTCCAGTGTAAGACTTC  
AAGTGGTTCCTGGAGACTGTGTATCCAGAACTGCATGTGCCTGAGGACAGGCTGGCTTCTTCGGGATGCTCCAG  
AACAAAGGACTAACAGACTACTGCTTTGACTATAACCTCCCGATGAAAACAGATTGTGGGACACCAAGGTCAAT  
CTGTACCTCTGTGATGGGATGGCCAGAATCAGTTTTTCGAGTACACGTCGCCAGAAAGAAATACGCTATAACACC  
CACCAGCCTGAGGGCTGCATTGCTGTGGAAGCAGGAATGGATACCCCTTATCATGCATCTCTGCGAAGAACTGCC  
CCAGAGAATCAGAAGTTCATCTTGCAAGGAGGATGGATCTTTATTTACGAAACAGTCCAAGAAATGTGTCCAGGCT  
GCGAGGAAGGAGTCGAGTGACAGTTTTCGTTCACCTTTACGAGACTGCACCAACTCGGATCATCAGAAATGGTTCT  
TCAAGAGCGCATGTT**ATGA**

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**FIGURE 1024**

MMWGR TARRRC PRELR RGREALLVLLALLALAGLGSVLAQRGAGAGAAEFGPPRTPRPGRREPVMRPFPVPANAL  
GARGEAVRLQLQGEELRLQEE SVRLHQINIYLSDRISLHRRLPVRWNPLCKEKKYDYNLPRTSVIIAFYNEAWS  
TLLRTVYSVLETS PDILLEEVILVDDYSDREHLKERLANELSGLPKVRLIRANKREGLVRARLLGASAAARGDVL T  
FLDCHCECHEGWLEPLLQRIHEEESA VVCPVIDVIDWNTFEYLGNSGEPQIGGFDWRLVFTWHTVPERERIRMQS  
PVDVIRSP TMAGGLFAVSKKYFEYLGSYDTGMEVWGGENLEFSFRIWQCGGVLETHPCSHVGHVFPKQAPYSRNK  
ALANSVRAAEVWMDEFKELY YHRNPRARLEPFGDVTERKQLRDKLQCKDFKWFLETVYPELHVPEDRPGFFGMLQ  
NKGLTDYCFDYNPPDENQIVGHQVILYLCHGMGNQFFEYTSQKEIRYNTHQPEGCI AVEAGMDTLIMHLCEETA  
PENQKFILQEDGSLFHEQSKKCVQAARKESSDSFVPLL RDC TNSDHQKWFFKERML



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**FIGURE 1025**

AATTATATATTTTACTCTATGTTTCTCTACATGTTTTTTCTTCCGTTGCTGGCGGAAGAGGCACGTGCGGCTG  
CTGAATGGAGCTGGTCGCTGGTTGCTACGAGCAGGTCCTCTTTGGGTTTCGCTGTACACCCGGAGCCCAAGGCTTG  
CGGCGACCACGAGCAATGGACTCTTGTGGCTGACTTCACTCACCATGCTCACACTGCCTCCTTGTGAGCAGTAGC  
TGTAATATAGTCGTTTTGTGGTCACTGGGAGCAAAGATGAAACAATTCACATTTATGACATGAAAAAGAAATTGA  
GCATGGGGCTCTAGTGCATCAGATGGTACAATAACTTGCCTGAAATTCATGGCAACAGGCATTTAATCAGTGG  
AGCGGAAGATGGACTCATCTGTATCTGGGATGCAAGAAATGGGAATGCCTGAAGTCAATTAAGCTCACAAAGG  
ACAGGTGACCTTCCTTTCTATTACCCATCTGGCAAGTTGGCCCTGTCGGTTGGTACAGATAAAACTTTAAGAAC  
GTGGAATCTTGTAGAAGGAAGATCAGCATTCTATAAAAAATATAAAACAAAATGCTCACATAGTAGAATGGTCCCC  
AAGAGGAGAGCAGTATGTAGTTATCATACAGAATAAAATAGACATCTATCAGCTTGACACTGCATCCATTAGTGG  
CACCATCACAAATGAAAAGAGAATTCCTCTGTAAATTTCTTTCAGAGTCTGTCTTGCAGTGGCTGGAGATGA  
AGAAGTTATAAGGTTTTTGTACTGTGATTCACTAGTGTGCCCTCTGCGCAATTTAAAGCTCATGAAAAACAGGGTAAA  
GGACATGTTTCAGTTTTGAAATTCAGAGCATCATGTTATTGTTTCAGCATCGAGTGATGGTTTCATCAAAATGTG  
GAAGCTTAAGCAGGATAAGAAAGTCCCCCATCTTTACTCTGTGAAATAAACACTAATGCCAGGCTGACGTGTCT  
TGGAGTGTGGCTAGACAAAGTGGCAGACATGAAAAGCCTTCCTCCAGCTGCAGAGCCTTCCTCTGTAAGTAAAGA  
ACAGTCCAAAAATGGCAAAAAGGAGCCTGGTGACACAGTGCACAAAGAAGAAAAGCGGTCAAAACCTAACACAAA  
GAAACGCGGTTTAAACAGGTGACAGTAAGAAAGCAACAAAGAAAGTGGCCTGATATCAACCAAGAGAGGAAAAT  
GGTAGAAATGTTGGAAAAGAGAGGAAAAGAGAAAATAAAACAATGCAGTGAATCAGAGATGTCTCCTGAAA  
GAACTCTTTTAGATGAAATCATTTCTACTCAAAATGTACCTTAATTTTTTTTTTCCCTGAGTAAAAGCAAGAAAT  
TCTTCCTTTGGAAAAAATATATATATTTAAAAAACCACTTTTAGATGGTTTTTTTTTAAAAAATAAATAATGTTAATGTGTCATGTA  
TAAATTAATCTTTTGGCAGACAGTGTATGAAATTATGATATCATGTTGATATATAATATGTTAATGTGTCATGTA  
ATTTTACTTTGTACAAAGCAAAATAAGATCTTTCTCAAAAAAAAAAAAAAAAAA

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**FIGURE 1026**

MELVAGCYEQVLFQFAVHPEPKACGDHEQWTLVADFTTHAHTASLSAVAVNSRFVVTGSKDET IHIYDMKKKIEH  
GALVHHSGTITCLKFYGNRHLISGAEDGLICIWDAKKWECLKSIKAHKQVTFLSIHPSGKLALSVGTDKTLRTW  
NLVEGRSAFIKNIKQNAHIVEWSPRGEQYVVIIQNKIDIIYQLDTASISGTITNEKRISSVKFLSESVLAVAGDEE  
VIRFFDCDSLVLCLCEFKAHENRVKDMFSFEIPEHHVIVSASSDGFIMWKLKQDKKVPPSLLCEINTNARLTCLG  
VWLDKQVADMKSLPPAAEPSVSKESKIGKKEPGDTVHKEEKRSKPNTKKRGLTGDSKKATKESGLISTKKRKMV  
EMLEKKRKKKKIKTMQ

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FIGURE 1027

AAACCCAAAGCGGCCGCTAGGCGAAGGTGAAGATGGCTGCCCTTGCTGGTGCAAGTGAAGCAGCTTC  
AGGAATCCTACGGCCCTGAATATTTTGGCATCTTCAACCTACCGCAACTGTGTCAAGAAATGCCTCTCTTATTTTC  
TGCATTGTCCACTGGACGTTTTAGTCATATTAGACACACAGTTGTTTCTCCACTCCAGACTTACCACATCTGA  
GAGAAACCTGACATGTGGGCATACCTCAGTGATCCTTTAATAGAAATGGCCCGCTCTCAAGTGTCTTGAAGCT  
GCCAGTCAGATCTCTAACATACTTTCAGTGCAGAAAGGCAAGAGAAAGACCGTGAAAGCTGTGCATCGATAGGTT  
TCTTCGACTTCATTGTGGCCCTTGGGTGAGGAGAAAGGCTGGCTATAAGAAAAAATATGGAAAAAGACACCTGC  
AAGGAAGAAGCGATTGAGGGAATTTGTATTCTGCAATAAAACCCAGAGTAAACTTTAGATAAAATGACGACGCT  
CTTCTGGAAGAGGCGAAACTGGTACGTTGATGATCCTTATCAGAAGTATCATGATCGAACAAACCTGAAAGTATA  
GATCAGAAGTTTCACTTGTTTCTCAGTTATTGGATATGTATCTTTGTGTACATATCTTTGCAAAAAATGGATAAGT  
ACAAAACCTTGATGTAATTTGTACCAATGTAACATACGTAACATACAGTGACAACATTAAACTTAGAAAAATTTTAA  
ACTTAATGGATCAGACTTTGCCAGATTTGGTTAGGGAACAGAAATTTAGAAATGGTGCAATTATTTTAAACAAATG  
GTATTGGCTTAACTAGTTGTTTCAGTTATGCTCTTTTAGTTGCAAGGAATCTCAAGTGGGACAAACATAAAAAAG  
CTCAAAAGCTACAAGTTAGCTCAAGCAATGTGACATTATTTCAAGGATATGTGCCAGGGAATTCAGGAACCACT  
CACCACCCCATCTCCCACTCAGAAATCACCTCCAGCCTCAGGAAGAGTAGAAATTTGGTGGTGCTCTCAGCA  
GGGGAAGTGGATGTTTAGGCTTGGGCTCTGCATGCATGTGACTGCTCTTTTTGCATTGTTAACTCCATTCTC  
TCTATTCAACCACTCTCTACACAGCTTTTGCACTACTTACAGTTTCTGTTCCCTTTGTAATAACTTTAACTTGCAC  
CTTTGAGGTTCTTTTCTACATGATGACCTTCAGCTCCTGCTGCTAGTCTCCAATTGCCAAGGGAATTTAACTGGG  
CCAGACTACCTTTTTATACTAGGCTCTGGTTGGGTCAATTGCTAGAGTAGGGAATGGCTGCTCTTAACTCAGGAGC  
CCGCTTTGTATTAGCAGGTTTGCATGCAGCAAAAAACAGTTATGTGAGCAGTTTCACTTGGAGGTTCCATGGG  
GTGGCAGCACACTTAACATCTAACACACCAAGGTTCAATTGTGTCATAACACTTGTCAATTACTGTAAACAACTT  
TTTCATAGGAGAGTAATAATAGCCCTTCAGCATGCTCATTATGAAACAGAAAGGCTGTACAAGTGAAGACAAGGG  
CTTTTTATGCAAGTTTGAAGATAGGTATTTATTTTCTAGAGACAGAGATTTTGCTCTGTTGCCAGGCTGG  
AGTGCAAGTGGTCAATCATAGCTCATTGAAGCCTCGCACTCCTGGGCTCAAGTGGTCTCTGCCTCAGCTTACT  
GAGTAAGGATATGTATTTCTTAAAGTTAGTTTATCCACTTCAGATTTCATGTTTTCATTGTGAAGGATAAACTT  
TTCCACAAAATTTTCAACAATCATTGTAGAAACTAAGGGGAGAAAGTAATCTCAGTTGTTTGAAGAACGAAAA  
GTTAAGCATTGTTTACTTGAAGTGGGACGGGAAGCAGCACTGAGTAAAGTTCAATTGAGTGGTTACAGTCTAGGG  
CAGTGGTTCCCAACTCTCCGATCAGAATCATCTGGGAAGCATTTTCAACACGCAAGTACTTTGAAAACCACTTAT  
TAAATAGAATTATGCATGAATTAAGTTTTCAGATCCTTTAATGTGGTAGTTGGTAATAATAAGATGAAATTCCTC  
TGTTGTTAGTAAAAATATGAAATGAAGTTCTGCAGCATGTCAGGCCAGGATTATTAGGAGATTCTTCGAACT  
ATGTTGTTGTTTATTAAGGAGAAAGGATAACAATAGAATGTTCTAAAACAGAAAGTCCAAAGTGCAGTCTACTT  
ATGGGACCAATAAATAAGAACACAGACATTTGATTTGAGGTGAGGTAAGGCTGAAACATGGAATGGCATTCTGT  
TTGATGGATTCTCTCTTCGCACTTCTGAGACGGCAAGGCCAACCTTAGAAGCCTTCCACATCTTTGTCA  
CCTGCCTGGCTCTGCTCTCTGATGTACCTCTGGGTAGTGAGATGGAATGGTGCTCGACAAGTTGGGGAAG  
GATACCTTTGCACAGCCTCCATGATGCTTTATGCAAAATATGGATGACAAGGGTCTCTGTACAGGGGCTCAG  
AGCACTTCTGTTCTCTCTGACAGGGGACAGGTGTAGAGATAAGGACTGCAACAGAGCCTCAGCATCCAAA  
GATGGACTGAAGTGGATGGCTGACAGGCACATAACTTACGGGAAGGGGAATTCATACATACGATTTTGTTTT  
TGGGTAGGAGGGCTTATCATCAACACTGATTTTATAATCTGACAATAAATGCTTTTCATTAAGAGTTTACCTA  
AATGAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1028**

MAASAFAGAVRAASGILRPLNILASSTYRNCVKNASLISALSTGRFSHIQTPVVSSTPRLTTSEENLTCGHTSVI  
LNRMAPVLPSVLKLPVRSITYFSARKGKRKTVKAVIDRFLRLHCGLWVRRKAGYKKKLWKKTPARKKRLREFVFC  
NKTQSKLLDKMTTSFWKRRNWYVDDPYQKYHDRTNLKV

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FIGURE 1029

GGCGCCGGGGGACACGTTGGCTGCGTTTTTCGGCGGGCCTCCCGGTACAAAAATGGCTGTGGCTAGCGATTCTCA  
CCTCGCCTACTACGTAGGGCACAGGGCAAGTTTGGGCACGAGTTTCTGGAGTTCGAATTTTCGGCCGGACGGAAA  
GCTTAGATATGCCAACACAGCAATTACAAAAATGATGTATGATCAGAAAAAGGGCTTATGTGCACAAGAGTGT  
AATGGAAGAACTGAAGAGAATTTATTGATGACAGTGAATTTACAAAAGAAGATGATGCTTTGTGGCCCTCCCGCTGA  
TAGGGTTGGCCGACAGGAGCTTGAATTTGAATTTGGAGATGAGCACATATCTTTTACCACATCAAAAAATAGGTTT  
CTTTATTGATGTAAATCAGTCAAAGGATCCTGAAGGCCCTTCGAGTATTTTACTATTTTGGTACAAAGACTTGAATG  
TTTAGTTTTTCAGCTCTTATTGGATTACACTTCAAGATTAAACCAATTAAATTTGATGTTTTTCAGGCTGTTTGTAT  
ATTTAATTAAGGGATGGGAGGGGTTATTGTTCATTACAGATTGGGGTTTTATGAATGTGAAGCAACAACAAAA  
AAATTTGTATGTAACTGAAAATTAAGAAAATACATTAGCAAGCTTAATGGTTATCCTTACTTGAGTCCACATGGG  
TTGACAGTCCCCACACACATTAAATTCGTAAATGAAAGCCACCTTTTGTAAAAAATTTGCTCTAAATAAACAT  
ACCAAAATCCTGGTTGCAGAGTAGTTTTTGTTTTTTCCAGGAGGCTATGCTCTCAATTCACTTTAGAGATAATAA  
GAAATTTGCTCGTAGATACATCTCTGTACAGAAGATACTTTAGGTGGAACATGTAGCCAGATTCCCATCCATG  
AAAGGCAAGGTAGATTGTCCCTTATTTCCTTCATACATGATTGGATTTAATTTTGGGGGGCTTATACAAGGTCT  
AGTTTTTTTTTACAGTTATGACAAACCCCTCAGGGATTATTCACATTTAAATATTTTCAGTTACAAGCAGTGAGG  
TCCTAAAGTGTTACAAGAGTACAGTCTACCCCATGTTAGGCATATCTTTGATTATGCTCTTTATTCCTTATTTTCA  
AATGTATTTGGTGTGTAGGGGAGGGGGGAGAACATAATGAGTTTTTCAGCTTTATAAATTTGTTAAACATTTAGACA  
AACATATATGTATGTATGAATGTACATAAATATTTTTAACTCCTATTGACCACGAGTCTCACTTCAGTTTCCCG  
TTCTTTTCAACCTCTTTTTCTGATAGATTTCCCTTTTCATTACTTTTAGTAACCATGTTCTTGTTCCTTTTATTC  
TTCCATCTGAAGCCCCACTCTTAAAAAGTTGCAGTGTTCAGTAGTTATAATCCACTTGCCTTAGGAACAAGTTA  
GCAGTGAATTTTGGGTGGAATAATTAGTTTCTGAAGGCTTGCCAGGACCCCTGAGCAGGTAGGCTCTAGAGTCGG  
GCAGTCCAATAACTTTTTTGAATAATGGAAACGTCCTATGTGCAGTCCAATAGGGTAGCAACTGGCCAAATGAG  
GCCTACTGATTACTTTGAGGTGTGCCTTGTATAACTGAATTTATGGTGCTATTAAACAATTTTTTCTCAACGTGA  
AAAGGATAAAACATAAAAACTCTTGAGAACTATAAAGTGAACACCTATATGCCTACCCCTACCTAGATTCTATA  
CTTAACATCTTTTTTACTGTAATATCTCTATTATAATAAATCTTGTTTTTCACTTAACTGGTGTAATTTGGTGCC  
AATAAAC TACTTTTTTTGTAGTGCTATTTAATTTTGATTAAATTTAGATAGCCACGTGCTAGCGGCTACCGTTT  
GGACAGTATAGCTCTAGAGCATGGCTTGTAACCTGTTTGCCATGGAGCACTAGATGGTCCTTTTCACTCCTCAA  
AATGCATGCCCATTTGCCCTCAGGTTTGCCATGGAAAGTCAAATGATTTCCTCTCATATGCAAGTACGCATATCA  
TCTTCAGGTCTTTTTGTATGTAAAAATGTTTCTGTTCCAGTTGTAGACCTTGATGATTGTGCAGTATGAAATCGTAT  
TGTAATTTTCTTGCATTTAGATGTCAACCTCAGAAACAGGAACAATCGCTTTTTGAACCTTCCAGTAGGCCACAG  
TTGTTGGTTGTTCCCTCAAAACAGGTTTGGCTCCTGTTGAATAAGATGATCCATTA AAAACTGAACAAGGTTGAG  
GAGAAATAGTGCTTACGTTGAAAAATCTTTAAGTCTTTTGCCCGTTCTCTCAACTTCTTACGTTTTTCGTTTTAT  
TAGTCCATCCCACATCTACTAGAAATTTCTCATATTTAAACCAAGATGGGAGACTAGGTCATTAGGAAAAATAT  
TACCGTCTACAATTTTCTTATACTTTGATCTGTCTTTTATTGATTGTAAGTTGCTGATGGACAGTGATCATTAG  
AAACTGAATTTTGATAATACTAGTTTTATATGAACTAGATATTTATTGCGCTCAGGTTATGTTCCTTTTACCT  
CCTTCTTAATAAGAGACCACCTGAAAT

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**FIGURE 1030**

MAVASDFYLRYVGHKGKFGHEFLEFEFRPDGKLYANNSNYKNDVMIRKEAYVHKSVMEELKRIIDDSEITKED  
DALWPPDRVGRQELEIVIGDEHISFTTSKIGSLIDVNQSKDPEGLRVFYLLVQDLKCLVFSLIGLHFKIKPI

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**FIGURE 1031**

GTTGCCGCTGCGCACTGGCTCAGGTGAGCTGCCCCGCCCGCCGGCGCGAGCCCCAGGTCTTGGCAGCAGCC  
CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCTCTGCCAGCTCTTGGATCAGTCT  
GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCTTGGAGCCAGCCTGCCCGGAGGAGGCCCGGCTCAGAGC  
**CATGCC**CAGGTGCTGTGATAGGGCCCTGACTTCCTCTCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG  
CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCCTCAGTCCAGTGGCT  
GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCTGGGTCAAGGCCAACCTGTC  
AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT  
CCAGAACATCAGCTTCTCTCTCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC  
CCTCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGGCGTCTCAACGTGCTGCTTGGTA  
CCAGGACGCGTATGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCTACGCTCTCTACAGCGACTGCC  
CGAGGACCGCAAGTTCGTGAATTCATCTTAAAGCCGCACTGGAGCGCGCTCGGGGTACAAGCTCTTCTTGGTA  
CGACCGCACTCTCTGCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCTCAT  
CGTGGTGCTTTCGGACGCTTTCCTGAGCCGGGCTTGGTGCAGCCACAGTTCGGGGAGGGCCTGTGCCGGCTGCT  
GGAGCTCACCCGAGACCCATCTTCATCACCTTCAGAGGGCAGAGGCGCAGCCCCGCGACCCGCGCTCCGCCCT  
GCTGCGCCAGCACCGCCACCTTGGTGACCTTGTGCTCTGGAGGCCCGGCTCCGTGACTCTTCTTCCGATTTT  
GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGTGCAGTACAGGCCGTGGAAGGAGACCCCGAGACGCACTGCA  
GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC  
GGACCTGAGGGCGACCTGGGTGTCGGGGGCCCTGTTTTGGAGAGCCATCAGCTCCACCGCACACCACTGGGGT  
CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGCTTCGGATCTCGGCTCGCGAAATACAGTGCCCGCACAGA  
CTTCTACTGCTGGTGTCCAAGGATGATATG**TAG**CTCCACCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC  
AGGGCAGCGGCGTCGCTCTCTGCTCAACAGGACCACAAACCTGCGCAGCAGCCCTGGGACCTTCCAGCAGCCCC  
TGGGAAAAGGCTGTGGCTCAGGGCGCCTCCAGTGCCAGAAAATAAGTCTTTTGGATTCTGAAAAA  
AA

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**FIGURE 1032**

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVS GPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS  
EVLVSSVLGVNVTSTEVYGAFTCSIQNI SFSSFTLQ RAGPTSHVA AVLASLLVLLALLLAALLYVKCRLNVLLWY  
QDAYGEVEINDGKLYDAYVSYSDCPEDRK FVNFILKPQLERRRGYKFLDDDRDL L PRAEPSADLLVNLSRCRRLI  
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLLWRPGSVTPSSDFW  
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV  
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM



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**FIGURE 1033**

AGTCTTGGCGGAGGTGACCAAAGCCACGTAATGTCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGG  
AAGGTGATTGGGACAAAAATGCAAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA  
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGCACAGTTGGGGATATTGTGCTT  
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACGGCTGAGATCGTTTTCAAAGTTGGA  
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC  
CAGCTAAGCAAAAATCTGGAAGAAGCTCAATATCTCTTCAGCACAGTGAAGCGGGAGTGGAGAAGGATCTAAAGG  
GAAAACTGACATGTTTATGTTATGGAAGAAAGAAATTTTCTAAGTTTCATCACAAACTGTGCCAGTTTCTCTG  
TGGTGTATGAAATAGCTAAAAGCAAATGAAGTAAAGGCATACTATGGTTTTTCACAAAAA

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**FIGURE 1034**

MSVVRSSVHARWIVGKVGIGTKMQKTAKVRVTRLVLDPYLLKYFNNRRTYFAHDALQQCTVGDIVLLRALPVPRAK  
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYESPLSSETTQLSKNLEELNISSAQ

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**FIGURE 1035**

GGCGCGCTTTCAAACGCTCAGGTTTCCTACCTTCCGGCTGCTTGGGAACCTTTCTTGTGCCCGCCAAAGCCCGAC  
CCACCCGGGCGCGCGGGGACTCCTAGACCCGGCGCTGCGATGAAGAGGACCCGCGACGAGGTGGATGCGACGCTG  
CAGATGCCCAAGCTGAATGCGGGCGAGCTGCTGCCGGCGGTGCACTGCCTGGGCTTCGGCCCTGGGGCCAGCGCG  
GCTGCACGCCGGGCACTTTGCTCTGCTGGAGCTGGAGCCACGCTGTGCCAGCAGCTGGAGGATGGACACAGTCTT  
GTGATTTCGTGGTGATAAAGACGAGCAAGCTGTGCTGTGCAGTAAAGACAAAACATACGACTTGAAGATAGCAGAC  
ACTTCCAATATGTTGCTTTTCATTCCCTGGTGTAAAACCTCCGGACCAAGTTGAAGAAGGAAGATTACACTGTAAAC  
ATTATTCACACTGAGATCTTTGGTTTTTCTAATAATTATTGGGAATTAAGAAGACGTAGACCCCAAGTTAAAGAAG  
CTAAAGAACTTTTGATGGAAAAATCCATATGAAGGACCTGACAGTCAAAAAGAGAAGGATTCAAATAGCTCAAAA  
TATACAACCTGAAGATTGCTTGATCAAAATTCAGGCAAGTGAGGAAGAAATAATGACCCAATTACAAGTTCTAAAT  
GCCTGTAAGATTGGAGGTTATTGGAGGATCTTGAATTTGATTATGAGATGAACTTCTGAATCATGTAACCTCAG  
CTTGTGGATTCTGAATCATGGTCTTTTGGTAAAGTTCCTTTGAACACATGCCTTCAGGAACCTCGGACCAATTGGAG  
CCAGAGGAAATGATAGAACACTGTCTTAAATGTTATGGGAAGAAATATGTAGATGAAGGCGAAGTTTATTTTGAG  
TTGGATGCTGATAAAATATGTAGAGCAGCAGCACGAATGCTACTTCAGAATGCGGTGAAATTCAACTCTCGCTGAG  
TTTCAAGAAGTGTGGCAGCAGAGTGTCTCTGAAGGAATGGTAACTAGTCTTGATCAGCTTAAAGGTTTAGCGCTG  
GTGGATAGACACTCGAGACCAGAAATCATATTTTTCGTGAAGTAGATGATTACCTGAGGATAATCAGGAACGT  
TTTAATAGCCTTTTCTCTAAGGGAGAAGTGGACAGAAGAAGATATTGCTCCATATATTCAAGATTGTGTGGA  
GAGAAGCAAACCATAGGTGCATTACTCACTAAATATCTCGTTCTTCGATGCAAAATGGTGTTAAAGTTTATAAT  
TCGAGAAAGACCAATTTCTTAAAGAAACAACAGTCTTTTCTTCAGGACTCAAGTTGCTTTATAAAGTTGCTGGATA  
CAAGAAAAATAACTTGTACTTTTATTCTGACTTTTAGAAACCTAGTCTTCTAAGGCAATTTTCTCTCATCTTA  
AGCATTTTGAACCTACTGTATTTCTTAAATGTTATAGGATGTAGCTTTAAATTTATATTGTACTATGTACACA  
GTGTAACAAGGACAAAAGAATCTTTCTATATTATGTCTGAGGTCTCTATGATTATTAAAGTTTGGCTTTT  
TATATTTAAATGTCATTCTTTACTTAGGATTGTATGTTCTAATCATTAAATACACTTAAGTTTCCAGAGAACT  
AAATAGTAATAGTTTCATAGAAAGAGAACTATTTATCTACTTAAATATCATTTCTCAAGTGAGTGAGTTCCCTCT  
ACTTTTAGCCTTCCACCCAACTGGAAAGCCTCTAGGTGCTATCAATTATTTATATCCATCGTTTACATCCATGAA  
ATTGGCTGAATAATTACTCCTCTGCCTGGCGTAGACATGTGCTTTGGGAAAAAACGAGTTTATAATCTCTATAAT  
GAAGAATACTGGCACAGGCAATGCTCACTCGAAACCTCAAGTAATTTCTAGTTGGTTTTGGAATGCTTGATAAA  
GTTCTTTACAGCTTTATTTTCTGATTGTTTGGTTTAGATCAAAGTTCAAAATTAATTTAACTTAGCTTAATG  
AACTCATCACCAGGACAGTTGGAGGGGGTAGGCCGAGGTTAAATGGTCCACGTTTCAAAAATGTTAATGGCTAAT  
CCATAATTAAGAAGGTTTAACTGTTACTGAAGTTTACAAGTTTATTGTCTATGAACATGAATAACAACACGAT  
GGCTCGAAATGCTTTCAATAAATGTTTCTGCATTTAAAAA

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**FIGURE 1036**

MKRTRDEV DATLQIAKLNAE L LPAVHCLGFGPGASGAAAGDFCLLEPTLCQQLEDGHS LVIRGDKDEQAVLC  
SKDKTYDLKIADTSNMLLFIPGCKTPDQLKKEDSHCNIIHTEIFGFSNNYWELRRRRPKLKKLKLLENPYEGP  
DSQKEKDSNSSKYTTEDLLDQIQASEEEIMTQLQVLNACKIGGYWRILEFDYEMKLLNHVTQLVDSESWSGKVP  
LNTCLQELGPLEPEEMIEHCLKCYGKKYVDEGEVYFELDADKICRAAARMLLQNAVKFNLAEFQEVWQSVPEGM  
VTSLDQLKGLALVDRHSRPEIIFLLKVDDL PEDNQERFNSLFSLRKRWTEEDIAPYIQDLCGEKQTIGALLTKYS  
RSSMQNGVKVYNSRRPIS

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**FIGURE 1037**

GAGTTTTTCATTTGTGGTGAGATTCTCTCCAGGCCACAAGACATTTCTGCTCGGAACCTTGTTTACTAATTTCC  
ACTGCTTTTAAAGCCCTGCACTGAAAATGCAAGCTCAGGCGCCGGTGGTCGTTGTGACCCAACCTGGAGTCGGTC  
CCGGTCCGGCCCCCAGAACTCCAACCTGGCAGACAGGCATGTGTGACTGTTTCAGCGACTGCGGAGTCTGTCTCT  
GTGGCACATTTTGTTCCTGTCCTTGGGTGTCAAGTTGCAGCTGATATGAATGAATGCTGTCTGTGTGGAACAA  
GCGTCGCAATGAGGACTCTCTACAGGACCCGATATGGCATCCCTGGATCTATTTGTGATGACTATATGGCAACTC  
TTTGCTGCTCATTGTACTCTTTGCCAAATCAAGAGAGATATCAACAGAAGGAGAGCCATGCGTACTTTCTAAA  
AACTGATGGTGAAAAGCTCTTACCGAAGCAACAAAATTTCAGCAGACACCTCTTCAGCTTGAGTTCTTCACCATCT  
TTTGCAACTGAAATATGATGGATATGCTTAAGTACAACCTGATGGCATGAAAAAATCAAAATTTTGTATTATAT  
AAATGAATGTTGTCCCTGAACCTTAGCTAAATGGTGCAACTTAGTTTCTCCTTGCTTTCATATTATCGAATTTTCCT  
GGCTTATAAACTTTTTAAATTACATTGAAATATAAAACCAATGAAATATTTTAACTGATAAAAAAAAAAAAAA  
AAATAAAAAA

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**FIGURE 1038**

MQAQAPVVVVTQPGVGPGPAPQNSNWQTGMCDCFSDCGVCLCGTFCFPCLGCQVAADMNECCLCGTSVAMRTLYR  
TRYGIPGSICDDYMATLCCPHCTLCQIKRDINRRRAMRTF

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**FIGURE 1039**

GGAAGAAAACCTGAAAAAGACCCCAAAGAAGAAATATGAAAAATGGTAACCTGGAGCCGTAGCGTCGGTGTGGAAGA  
CGAGGCCACAGACACTTCTGATAGTGAAGGAAGCTGTGGATCGGAAAAGGACCACCTTTTATTCTGATGATGACGC  
AATAGAAGCTGACAGTGAGGGTGATGCTGAGCCCTGTGACAAAGAAAAATGAAAAATGATGGAGAATCAAGTGTTGG  
GACTAATATGGGCTGGGCAGATGCTATGGCTAAAGTCCTCAACAAGAAAACCTCTGAAAGTAAACCTACTATTCT  
GGTCAAAAAATAAGAAGCTGAAAAAGGAAAAAGAAAAGTTAAAGCAAGAAAGACTAGAGAAAATAAAACAGCGTGA  
TAAGAGGCTGGAGTGGGAAATGATGTGCAGAGTAAAGCCAGATGTTGTCCAAGACAAAGAGACAGAGAGAAATCT  
TCAGAGAAATTGCAACAAGGGGTGTGGTGCAATTATTTAATGCTGTTTCAGAAAACATCAAAAGAATGTTGATGAAAA  
GGTTAAGGAAGCTGGAAGTTCTATGAGAAAGCGTGCTAAGTTGATATCAACTGTTTCCAAGAAAAGATTTTCATCAG  
TGTTTTGAGAGGGATGGATGGAAGTACAAATGAGACTGCTTCAAGCAGGAAGAAACCAAAAGCCAAACAGACTGA  
AGTGAAATCAGAAGAAGGCCAGTTGGACGATCCTACGTGATGATTTTCATGATGGGAGCATCTATGAAAGACTG  
GGACAAGGAAAGTGATGGCCAGATGACAGCAGACCAGAATCTGCAAGTGACTCTGATACATAAAGCATCATAGG  
AAATACAATTGCAGTCGTTTTATTTTTTCTAGAAAAATAATGTCATCCTCTGATAGTTGGGGAATTATAAGGATAC  
CATTGTGAAGAAAGCCAAAGACTTTTGCCAGATTTTCATATTTCCCTTTTCATGTACACTTTATATATACTTCA  
TTAAATATATATTTTAAACCCCTTGATATAATTTTAAGCATTGTTCCCTCAGAACATTGTGAAAAGGATATATTTCTG  
CTTGACCACGAGATGTGCATTTTGCCAGGATCATATTTGGTCATGTCATTGGTGATATTATTCAGTATCACCAA  
TGTTTTTCAGAAATACAGTACTAATTTCATCATTAAACTCTTTGAAGTTAATATTTTTCTGCCTTCAACTTATAGA  
CTCAACTATGTATCTGTAGTTTTTGGGAATGGTGGTGTTTTTTGCTTTGTGTTGGGAAGTTATTGAGAAAACCT  
ATATAATAAAATTTAAATATAGTTTTTCAAA

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**FIGURE 1040**

MKMVTGAVASVLEDEATDTSDEGSCGSEKDHFYSDDDAIEADSEGDAEPCDKENENDGESSVGTNMGWADAMAK  
VLNKKTPESKPTILVKNKKLEKEKEKQERLEKIKQRDKRLEWEMMCrvKPDVVQDKETERNLQRIATRgvvQL  
FNAVQKHQKNVDEKVKAGSSMRKRAKLISTVSKKDFISVLRGMDGSTNETASSRKKPKAKQTEVKSEEGPGWTI  
LRDDFMMGASMKDWDKESDGPDDSRPESASDSDT



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FIGURE 1041

GCTGCCGCCCGCCTCTGGGCGAGCGCGGGAGCCGCACAGTAGACGGAGCGCGCCCGGCGAGCGGGCCATGGCC  
GCGGGGGCGCCCGCGCAGGTGGTGGCGCGCGGTGAGGAGAGCGCGCGCCGCCCTCCGGGGCGGATGGAACGCGG  
CTCGGGCGGGCGGGCAGTGCCGGCGCTCGCGGGTGAATGTTGCTGGCTGTGTGGTGGTGGCTCGGTCTCTGAAG  
CCCCGAGAGGAGCCACAATGTCGAGCGCGCGCGTCCCGCATGCAACAGCAGGGTTCATCAGAAGCCCTCTCGA  
TTCAAAAGATGATAATACCGAAAAACACTGCCAGTGACAGTGAACTCCTTGGCATATGAAGAAGCTTTCAAAGT  
CATGAACGAATTAAGAAGTCAAAATTTGCTGTGCGATGTCACAATTTGGGCAGAAAGCATGGAATTTCTGCTCA  
TAGATGGTGTCTGGCCGCTGTAGTCCCTTATTTTCATGCCATGTTTACAGTGATGAGTGAGAGCGCGGAGCAAA  
GAGAGTTAGAATAAAAGAGGTAGATGGCTGGACCTTGAGGATGCTAATTTGATTATGTTTACACTGCAGAAATTC  
GGTTACAGAAGAAAATGTACAGGTACTTCTCCAGCAGCTGGTCTCTTACAGTTACAGGATGTGAAGAAGACTTG  
TTGTGAATTTTTGGAAATCCCAAGTTTCCCTGTCAACTGCTTAGGAATCCGGGCTTTGCTGATATGCATGCATG  
TACTGACCTTCTGAACAAGGCCAACCTATGCAGAGCAACATTTTGCAGATGTTGTACTTAGTGAAGAATTCT  
CAATCTTGGCATCGAACAGTGTGCAGCTTAATCTCAAGTGACAACTTACCATTCTTCAGAGAGAGGTTATT  
TGAAGCAGTAATAGCATGGGTGAACCATGACAAGGATGTGAGGCAAGAGTTTATGGCCCCGACTGATGGAACATGT  
ACGGTTACCTTTGCTTCTCGGGAATATTTAGTTAGAGGGTTGAAGAGGAAGCATTGGTCAAGAATAGCAGTGC  
TTGCAAGGATTACCTCATTGAAGCAATGAAGTACCATTGCTGCCAACAGAGCAGCGGTATATTAAGAAGAGTGT  
CCGAGCCGGCTGAGGACACCACTTCCAAATTTGATGGTGGTGGTGGGGCCCAAGCACCACAAAGGCTAT  
CCGGAGTGTGGAATGCTATGACTTTAAAGAAGAAAGGTGGCACCAGTAGCAGAGTTGCTTCCAGGAGGTGCAG  
GGCAGGCATGGTCTACATGGCTGGACTGTGTTTTGCTGTTGGTGGCTTTAATGGCTCATTAAGATTTCCGACTGT  
AGATTTCTACGACCTGTGAAGGACCACTGGACCCAGCGTTCATACATGAGAGACCGGAGAAGCATTGGGGAGC  
TGCTGTGTTAAATGGATTATATACGCTGTGGGAGGCTTTGATGGGAGTACAGGTTTGTCTGTGGAAGCATA  
CAACATAAAGTCTAATGAGTGGTTTTCATGTAGCTCCCATGAATACAAGGAGGAGCAGTGTGTGGTGGGTGTTGT  
TGGAGGTTTGTCTATGCTGTAGGAGGTTATGATGTAGCATCACGTCAGTGTCTTAGCACAGTAGAATGCTATAA  
TGCTACAAACAAATGAGTGGACCTATATAGCAGAAATGAGCACCAGGCGGAGTGGAGCAGGTGTGGTGTGTTAA  
CAATTTATGTATGCTGTAGGAGGTGATGAGGCTTTAGTACGAAAAAGTGTGGAAGTATATGATCCCAACCAC  
TAACGCATGGAGACAGGTTGCAGATATGAACATGTGCAGAGAAGAAATGCAGGAGTTTGTGCAGTTAATGTCTGTT  
ATATGTTGTTGGAGGGATGATGGTTCTGTAACTTGGCGTCAGTAGAATATTATAACCCAACAACCGGATAAATG  
GACAGTTGTGTCTATCGTGTATGAGCAGGGAGAGTTATGCAGGGGTACAGTTATTGATAAACGATTATGAGG  
CTGAAGGACATTTTCAGCATATTTATACATGAGAAACAGCCTTCAACAAGTATTTGTGAAGTGACTGAGAACTCA  
GCACCTTCTCCACTTGTAGCTGCACCTTAAAGTCTCAGCAGAAGATACGATCGTCTGCCCTTATAGGCCCTCAGATC  
TGAAGATTATTTTGGTAGAAGCACCGGTGAGGCTTTTCTGCAATGAGCAGCAGCTGACTGAATTTCTATAAGA  
AACTTGGACTGCAGGACTTAATCTGTAGTCTTTAGACAACAGTTGCTTTTATAAAGACTAGTCTTATCAACCTAGT  
GAATGACTACAGATTATTTTGTGAAGGAGGATGAAGTAAATGTGTGTTCTTTGAAAAATTAATTTTATCTTTATT  
CTTCTAAAAATCTGTATACCGAGGAACGAAATCTTTGAACAGATATTAATATCTACGTAAAGTATACAACTAGT  
TGAGGGATACAGCTGTTGCTTTTATAAAAACTTTGATTACATGAATATAAATAAATATGTGCATATAAATGTG  
TGCTCATATGCTTTTCCCTTTAAATATGTTTGAAGAAGATGTTGAACCTTGATTATACTATTATAATTTGGCAGAT  
ACTTTGAATATAGCCAGTACTACATTGTAAAAACAGAGTTGTATTTTGTATTTTAAACATGCTTAACTTTAA  
ATGCCACTCTGAGGAATGGACCTGGTGAACACACTTGAATATGTGTGATGCCAACTTTTAAAAATACAATAT  
AAGTTATGCTTATTATTATTTTCTTAGTTTAACTCTGGTCAGTGTGGTGGTATTTTAAATTTTCTTTCTTA  
AATTAACACTTTGGCATGAACATTACTGCAGGTTTTGTATGAATATAAATGAATGTATGGAATTCATTAATTTG  
CATGGTCTCGGAATTTTTTCTGTGTGTATAAATTTAGTGTCTATTAAACAGAAGAGAGAACTTTCTGTGAGTAGC  
CATGTGTGTTGATCAGATACAGTCTTTCTGAGATCTTCAATTAATCTCACTTTAAAAATGACCAAAACATGTCTT  
TCTTGAATTAACCTTGAATAAAAGTTGTATATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAA  
AAAAA

**FIGURE 1042**

METPPLPFACTKQGHQKPLDSKDDNTEKHCPVTVPNPHMKKAFKVMNELRSQNLLCDVTIVAEDMEISAHRVVLA  
ACSPYFHAMFTGEMSESRAKRVRIKEVDGWTLRMLIDYVYTAEIQVTEENVQVLLPAAGLLQLQDVKKTCCEFLE  
SQLHPVNCLGIRAFADMHACTDLLNKANTYAEQHFADVVLSEEFNLNGIEQVCSLISSDKLTISSEKVF EAVIA  
WVNHDKDVRQEFMARLMEHVRLPLLPREYLVQRVEEEALVKNSSACKDYLI EAMKYHLLPTEQRILMKSVRTRLR  
TPMNLPLKLMVVVGQAPKAIRSVECYDFKEERWHQVAELPSRRCRAGMVYAGLVFAVGGFNGSLRVRTVDSYDP  
VKDQWTSVANMRDRRSTLGA AVLNGLLYAVGGFDGSTGLSSVEAYNIKSNEWFHVAPMNTRRSSVG VVGGLLY  
AVGGYDVASRQCLSTVECYNATTNEWTYIAEMSTRRS GAGVGLNLLYAVGGHDGPLVRKSVEVYDPTTNAWRQ  
VADMNMCRRNAGVCAVNGLLYVVGDDGSCNLASVEYYNP TTDKWTVVSSCMSTGRSYAGVTVIDKRL

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FIGURE 1043

AGAAATCAACTGCTTAGCCGGGTGTGTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG  
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG  
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCAGGTGTACCTACCTGTGCG  
GGTCTCACCTGTGTAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG  
TGGCTCTCACTTGTGTGGGTCTGGTATGTGCACAAAGGCCCTGGGAATTGGCAGCTGTCACTGTGCCAGGAGCAGACC  
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT  
TTTATAAATGGAAGACTGAGTTAAAGCAGTGGGGCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA  
CCTTGGGCAGGTGCTGCCAGGGGCCGTAGCCCCAGGCCCTCCACTCCCCGCATCCTCTGATGACCATCCTGGGTGA  
GTGGAGGACATCTGCCCGGCCAGTCAGGCCCAGTGGTGATGCCCCCATGCCACAGGACAGAAGCTGCTGGACT  
CACTGGCAGAGACCTGGGACTTCTTCTTCACTGACGTGCTGCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG  
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCTCAGTGTGAAGCTAGAGG  
ATGCGCTGGCCCGGGCCCATGCCCGCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGTGTCAGGGGGTACATG  
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCTGGAGACGCTGGTCCAGAAGGTGGTGTGCCCATACCTGGGCA  
CCTACGGCCTCCACTCCAGCGAGGGGCCCTTCACCCATCTCTGCATCTGGAAAAAGCGCCTCTCCGCGCTCC  
GCTCGGGGACGTGCTGGCCAAGAACCCTGTGGTGCCTCCAAGAGCTACAACACGCCCTCTGCTGAACCCCGTGC  
AGGAGCACGAGGCGAGGGCGGGCGGGTACCAGCATCCGCTGGCACTCTGTGTCCGAGATGACGTCTCT  
GCCCGAGCCTCAGGGCTTCTCCGACCCGCCGGCCAGGGCCCCACCGGACCTTCAAGTCTCTCCCGGGCGCCCC  
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCTTGAGCAGGGCTTGATCCACCCGCACT  
CCCTGCCCGCTCCAGCCCGGAGAACCCTGGTGGACCAGATCTCGGAGTCCGTGGACTCGGATTCTGAAGGGATTT  
TCATTGACTTTGGCCGGGGCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGCGGGCAGAGTGTCTGT  
GAGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGGTGTCCATGTGGCGTGTGTGTGA  
GTGAGACTTTTTTACTGCGTCCCTCCCGCAGCCCTGTCGGCTCTGCTCACTGGCCTTGGTCACTTTGTATTTCT  
GTCTTGGTTGGAATACCATCAGCCTTCTCTGCTCGGCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC  
AGGGGCGGGCCAGAGACGGGGGCGGGCGCTCGTCCACGCTCCTCTGCCCGAGCCCTCTGGGTGCCACACC  
TGCCACAGAGAATGTAAACCCAGTGGGCTCTGCCACGCCGGGGCCCCAAGTGACCAGACTCCAGCACACCTGT  
CTCTCTGCTGCTGGGTGGCCATGGGGATGGAAGGGGTGGAATAAACCTGTCAACCTGAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 1044**

MAPMPTGQKLDSLAE TW DFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA  
IVQMLLVLQGVHESRGVTEDYLRLETLVQKVVSPLYLGTYGLHSSEGPFTHSCILEKRLLRRSRSGDVLAKNPVVR  
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT  
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRSGMSDLEGSGGRQSVV

TGTCAAAAGGCGTCGACACGAGACCCCGTGGGCCAGGATGACTTCTCCCCACACAGGGGTGGGGGGGGCAAGC  
AGGAAGGAGGCGCTGTACAGTCAAGGTGACGATCATCTGCCGGGGCAGCCGCAACAGCAGCTGGGTCCGCGAAGCGCA  
CAGGAGCAGCGGTCATCTTTTCCGACAGCGCTCGGAATCGGACCTGTCGCCACCGAGCCCGGAGCTGACGAG  
CGGGGAGACGGAAGATTACAGAGGATCAAGTGGCACCGAAAGCAGCTCTTGAGGAGCATCCAGAAGCTGAAGGA  
TGAGATTTCAGATGTGTTGGTGGGAAATTCAGCTGTCTCGAGAGTCCGGAGGAGCGCGGATGCCCCAGAAGGAGA  
GGAGCTGTGTATTGGGCGCAAGAAATTCAACATGACGCCCGGCAAGGGTATCCAGTATTTTATGAGCAAGCT  
GCTGACCCCTGACGTCACGAGCAATTGCACGGTTCTGTATTAAGGCGGAGGGGCTTCAACAAGACAGCCATTTGGTATC  
CTACTCTGGGGGAGAGGATCCCATCAACTCTCAGGCTCTCCAGGCTCTCGTGAGTCTGCCACGATCTGCCAACG  
CAACCTCTGCTCAGGCGCTCAGGAGATTCTGTGGAGTTCTCGGCTGCCGGGCGAGGCCAGAAAGATAGACCGGAT  
GATGGAGGCCCTTTGGCACTCGATATGCCTCTGCAACCCAGGCGCTTCTCCAGTCCACAGACAGCCATGCTACGGTGT  
GTCTTCTTCCATCATCATGCTCAACACAGGCTCCCAACATCCCAAGCTCCGGGACAGGCGCCTTTCAGCGCTTT  
TGTGTCCATGAACCCGGGATCAACAATGTGAGCCAGCTCCGGAGGACAGGCTGCGGAACCTCTTCGACAGCAT  
CAAGAGTGAGCCATTTCTCATCCCTGAGGACACGCGCAATGACCTATCACCATTCTTCAATTCCAGACCGGCA  
GGGTTGGCTGCTCAAGTCTAGGGGGCCGCTGTGAAGACGTGGAAAGCCGCGCTGTGTTCTCTGACCGCAAACTGGCT  
CTACTACTTTCAGTTTCAACATGACAGAGGACCGGGAATTATACCTCTTGAGAACCCTCTCGGTGACAGAGGT  
GGATGAGCCCAAGAAAGCCATCTGCTTGGAGCTCTACAAACCTAGCTGCCAGGCGAGAAATTAAGGCTTGCAA  
AGCCGATGCCGACGCGGAGGCTGTGGAGGCGAAGCAAGCATCTAGCCGATCTCAGCCACAGTGGCGGAGGAAGC  
TGACCAAGTGGATCGAGTCCATCCGAGCCAGCATACCCCGTGTCCCTTCTACGACCTGGTCTCTACTCGGAAGAA  
GAAGATTGCCAGCAAGCATTCGATCTCTGGAGGTGGAATCGGGGCTGGTCACTTGGAGTCTCCATCGAGCTCCCTCGCTCG  
AGACCTTGGGACGACCCCTTCCACCCAGCTGCACTTTTGGGCGGACGACATATAGTGTGTCCCGTTAACTCT  
GAGCTGACTCTAGAGGGGAAGGCAGAGCTCAGGAGGTTGGTGGGAGCTGCAGTGGGCTCAGAGTCCAGCAATGA  
GGCCCGCTTGGCTGGGCAACCAAGCTCGAGGCCCTTGCCCTTACGTGCACTACAGGAAGGGGTGAGGAGAGCGCCA  
GAGAAAACACCGCCAGAAATGCTGCAACTTCTTCTCTTGCAGTCTGGTGTCTCGGCTCTGAAGGCGCTCT  
CTGCACCTAGATGCTGTGACGCCCTCAAGTCTAGAGAGGGGCGCTGGGTTCCCTAAGTATTTCTCTCCCTGGCAGG  
CTCTCTCTTTTCAGGATATCTCTGCCAACCTTCCCTCTGCTCCGGTGGGCTTGGCCCTCTCTGCTCTGAGAG  
AGCTCAGACACACACAGCTCAGACCCAGCAGAGACCCGGGACAGAACCCGGGAGACATGCCCTAGAGGCC  
TGCACCCACAGAGCTCAGTCCAGCTCTGCTCTGACTCGTGTGTACCTCTGCCAAGTCTGACCTATGCCCATTTCTTA  
GTGTTGTCAAAATGCTCAGTGTTTGGATCTAGAACTTGTGCCCTTGTGCTGGGCTTGGCCCTTGGCCCTCTGCTGAG  
AGATGGGAGCGGTTATTGGCGAGCCAGGCTGACTTCGGATTCAACGTTGCTGGGGAGAGAAAAGCAGTATAGA  
CTCCACTTTCAGGATGCTCAATTCGGGGAGAGGAGCAGGTGGGACCTCAGAAAAATTCAGCGAAGAACATCCGAC  
ACAGATGGGACTCAAGCAGGATGGGTGCTATATCCAAAGACCAAGAAAGGAGATTTCGTGCTCTGTGTTTAAC  
AGAGAGGGCCGCTGGAGGCGAGTGGGTGAGCCAGAAAGTAACACAGAGCTCATGCTTGGAGAGATAGAGTCTTGGC  
CATGGCTTTCTCGAAGCAGCATCAGACAGAGCTCCATGTGTGAAGGGCGAGCCCGGCTGGGTCCGAGATCTCG  
AGACCTCTGCGAAGATTATTACAGATAGAGTCACTTCAGTACCCGGGACCGGAGCTCTGCTCGAGGAGG  
CTGGCCGTGGAGGAGGAGTCCACTAACAGGAAACACTTCTCACCCCTCACACAGGCCCGGAGGAGCCGCTGGAG  
GAAATTTCTTGGCAGGGGAACAGAAATTTGTTGCCCTTGTGCCCACTGCCAGGCTGAGTGGGACAGGAAGCAG  
GTGATTCCCCACAAGGAACGCGAGCTCGCGAGGACCACTTCTCTGTGCCCAACCCAGCCCATATTGCAACAT  
TCCACAGGGTCAGGATGGAGTAGTGCCTTGGCAGGTGGTGAGACTCCTGCTCTGAGGTTCTGCAAGCATGGT  
AGTGAATTTCGACAGACAGAGTCTTGGGTTGGGCGCTCTGCAGGAGGAGACCTTTGGGACATCTGAGGACATCCG  
CAGATTCTGTGCAGCTGTGAATACTAGGCCCTTGCTCTGTCACATTTGGTCCATGAGAGACAGCCAGGGGTTG  
TGAAGGAGCACTGGGCTAGGGGTCAGGGGTACAGATTCTGCTCTGGATCTGGGATGCACTGGCTATCTCGCCCTTA  
GTCTACTCTCTCTCTCTCTGCTCTCACTTCCATCATGGAGGAGTGGGATCATGGATTTCTTGGGCAT  
AAGTGGCTGTTCTGGGAGTCTTCAAAGAGAGAATAAACTCTGATCCAAAAAATAAAAAAAAAAAAAA

**FIGURE 1046**

MDLCHPEPAELSSGETEELQRIKWHRKQLEDIQKLKDEIADVFAQIDCFESAEESRMAQKEKELCIGRKKFNMD  
PAKGIQYFIEHKLLTPDVQDIARFLYKGEGLNKTAIGTYLGERDPINLQVLQAFVDCHEFANLNLVQALRQFLWS  
FRLPGEAQKIDRMMEAFATRYCLCNPGVFQSTDTCYVLSFSIIMLNTSLHNPVNRDRPPFERFVSMNRGINNGSD  
LPEDQLRNLFDSEIKSEPPSIPEDDGNDLTHFFNPDREGWLLKLGGRVKTWKRRWFILTDNCLYYFEFTTDKEPR  
GIIPLENLSVQKVDDPKKPFCELYNPSCRQKQIKACKTDGDGRVVEGKHESYRISATSAEERDQWIESIRASIT  
RVPFYDLVSTRKKKIASKQ

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**FIGURE 1047**

GTGTTTTCTGCGTGAGAGGAAAAGATGCTAGAACCCAGGAGAATGGCGTGATTGACCTACCAGATTATGAGCAT  
GTAGAAGATGAAACTTTTCCTCCTTTCCACCTCCAGCCTCTCCAGAGAGACAAGATGGTGAAGGAAGCTGAGCCT  
GATGAAGAGTCAGGAAATGGAGCACCTGTTCCCTGTACCTCCAAAGAGAACAGTTAAAAAGAAATATACCCAAGCTG  
GATGCTCAGAGATTAAATTCAGAGAGAGGACTTCCAGCCTTAAGGCATGTATTTGATAAGGCRAAAATTCAAAGGT  
AAAGGTCATGAGGCTGAAGACTTGAAGATGCTAATCAGACACATGGAGCACTGGGCACATAGGCTATTCCCTAAA  
CTGCAGTTTGAGGATTTTATTGACAGAGTTGAATACCTGGGAAGTAAAAAGGAAGTTCAGACCTGTTTAAAAACGA  
ATTGCACTTGATCTCCCTATTTTACATGAAGATTTTGTAGCAATAATGATGAAGTTGCGGAGAATAATGAACAT  
GATGTCACCTTCTACTGAATTAGATCCCTTTCTGACAACTTATCTGAAAGTGAGATGTTTGCTTCTGAGTTAAGT  
AGAAGCCTAACAGAAGAGCAACAACGAAGAATTGAGAGAAATAAACAACTGGCCTTGGAAAGAAGGCAGGCAAAG  
CTGCTGAGTAATAGTCAGACCTAGGAAATGATATGTTAATGAATACACCCAGGGCACACACCGTTGAAGAGGTT  
AATACTGATGAGGATCAAAGGAGGAGTCAAATGGATTAAACGAAGACATTCTGGACAATCCATGTAATGATGCT  
ATTGCCAATACTTTAAATGAAGAGGAAACACTGCTGGACCAGTCTTTTAAAAATGTGCAACAGCAACTTGATGCT  
ACATCCAGAAATATTACTGAAGCTAGATTAAGTTCCATTAAAGAGAAAATGTATCTGTTAAGTCATCGTCTGCAA  
GCTTGGCGTTACTATGATTTTTTCTTCTGGAGTGAAAATCCTTAGATAGTAAACCTGTTATAGATTATTGTTT  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1048**

MLEPQENGVIDLPDYEHVEDETFPPFPFPPASPERQDGEGTEPDEESGNGAPVPVPFKRTVKRNIPKLDQORLISE  
RGLPALRHVFDKAKFKGKGHEAEDLKMLIRHMEHWAHRLFPKLQFEDFIDRVEYLGSKKEVQTCCLKRIRLDLPIL  
HEDFVSNNDVAENNEHDVTSTELDPFLTNLSESEMFASELSRSLTEEQQRRRIERNKQLALERRQAKLLSNSQTL  
GNDMLMNTPRAHTVEEVNTDEDQKEESGNLNEIDNPNCDIAIANTLNEEETLLDQSFKNVQQQLDATSRNITEA  
R



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**FIGURE 1049A**

CGCTCGGAAAGTTACAGCATGCAGGAAGTTTGGGGAGAGCTCGGCATTAGCACAGCGACCCGGGCCAGCGCAGGG  
 CGAGCGCAGGCGCGCAGAGCGCAGGGCGCGCGCGCTCGGTCCCGGAGCAGAACCCGGGTTTTTCTTGGAGCGGA  
 CGCTGTCTCTAGTCGCTGATCCCAAAATGACCGCGGCTCATCTTTGTCTACACTCTAATCTCGCGGAAACTTTTGCAG  
 CTGTGCGGACACTCTGCAACCCTCCGACAGCGCATCCATAAAGCTTTTGGCAAGCCCACTCGAGCGGAGATGA  
 GAGCAATCACCTTCACAGACTTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACCGCTACGTGCAGAGTCC  
 TAGATTCCCGAAACAGCTACCGCGGAACCTGCTCTGACATGGCGGCTTCATCTCTCAGGAGAATACACGGATACA  
 CGTAGTGTTTGCAATACCTTTGGATTATAGGAAGCAGAAAATGATATCTGTAGGTATGATTTTGTGGAAAGTTGA  
 AGATATATCCGAAACCAGTACCATTATTAGAGGACGATGGTGTGGACACAAGGAAGTTCTTCCAAGGATAAAATC  
 AAGAACGAACCAAAATTAATAATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTATTA  
 TCTTTTGTGGAAGATTTCCAAACCGCAGCAGCTTCAGAGACCACTGGGAATCTGTGCAAGCTCTATTTTCAGG  
 GGTATCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGATGCTCTGGACAAAAAATTCGACAAT  
 TGATACAGTGGAAAGTCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGA  
 CACCCCTCGGTATCGAGGCAGGTATACCATGACCCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGC  
 CAAGCGTTACAGTTGCACCTCCCGAAGTAATCTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCCAATGTGCTCT  
 CTTTCCACGTTGGCTCCTCGTGCAGCGCTGTGGAGGAAATTTGGCTGTGGAACTGTCACTGGAGTCTCTGCAC  
 ATGCAATTCAGGGAACCCGTGAAAGATATCATGAGTATTACAGTTTGGACCTTGCCACATCAAGAGGAGGGG  
 TAGAGCTAAGACCATGGCTCTAGTTGACATCCAGTTGGATCACCATGAACGATGTGATTGTATCTGCAGCTCAAG  
 ACCACCTCGATAGAGAATGTGCACATCTTACATTAAAGCTTGAAGAACCCTTAAAGTTAAGGAGGTGAGATAA  
 GAGACCCCTTTTCTACCGAACCAAACTTACTACTAGCTTGAATGCAATGAACACAAGTGGTTGCTGAGTCTC  
 AGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAGGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCA  
 TTTAATAATAGTGTTTGAGTTTATATATGCAACAACACACAGAAATATATTCATGCTATGTGTATATAGATC  
 AAATGTTTTTTTTTGGTATATATAACCAGGTACACCAGAGCTTACATATGTTTGGATTAGACTCTTAAATACCTTT  
 CGCAAAATAGGAGTGGTCAATATATAGAAACATGCTTTAGAAAATTTAGGAGATAAATTTATTTTAAATTTT  
 GAAACACAAAACAAATTTGAACCTTCTGCTCTTAAAGAAAGCATCTGTGATATAAAAATCAAAAGATAGGCTT  
 TCTTACATATACATCTTAGTTGATTATTAAGAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCAATACCTAAGCA  
 TTTTTTCCATGAGAAGCACTGCATCTTACCTATGTGGACTATAATAACCTGCTCCAAAAACCATGCCATAATAA  
 TATAAGTGCTTTAGAAAATTAATCATTTGTGTTTTTATGCAATTTGCTGAGGCATGCTTATTCATTTAACACCTA  
 TCTCAAAACCTTACTTAGAAGGTTTTTATATAGTCTTACAAAAGACAATGATAAGCTGTAACAGAATTTTGA  
 ATTGTTTTTCTTTCGAAACCCCTCCACAAAAGCAAACTCTTCAAGAATGGCATGGGATCTGTATGAACCTT  
 TCCAGATGGTGTTCAGTGAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATCGACGTAACCTGG  
 AAATTAGGTGGGATTTTGTAGAGATCCATATCTAATAATGGATTGCAACTTCCAAACTACCAAAATTAATTTA  
 ATGATCTTGCTTTTGTGTTCCCGTCTTTTTGAAATATAGACATGGATTATAATGGCATTTTATATTGGCAGG  
 CCATCATAGATTATTTACAACCTAAAAGCTTTTGTGTATCAAAAAATCACATTTTATTAATGTAATTTCTAAT  
 CGTATACTTGCTCAGTGTCTGATTTCCTGTTTCTGAACCAAGTAAAACTCAGTCTAGAGGCTATGGTTCTTAAT  
 CTATGGAGCTTGCTTTAAGAAGCAGTTGTCAATTGTGGTAAACACAAGTTTGGCTCTGCTCTGCTACTGTTTAA  
 AGAAAAGTGTTCATTTGGTTAATGGTATTAGAGTAAATTTTCTCTCGCTCCTTTGTGTCTGTTTAAAG  
 GAGACTAACTCCAGGAGTAGGAAATGATTATCATCTCCCAAAGCAAGAGGCTTAAGAGAGAAACACCGAAATTC  
 AGATAGCTCAGGGAGCTGTAACAGAGAACTACATTTTCTTATGCTTTGAAAGTTAAAGGAAAGCAGATTTC  
 TTCAGTGACTTTGTGGTCTTACTAATACAACCAAGTTTGGGTGACAGGGCTGGTAAAGTCCCAGTGTTAGATGAG  
 TGACCTAAATATACTTAGATTCTAAGTATGGTGCTCTCAGGTCCAAGTCTCAACTTCTTAAGCAGTGCATATC  
 TTCAGGATTTTGTAGATTGAAGATCTCTGCTTATTGAGATGTACCTTTGAAAACCTTCTCAAAAGTGTCTGAT  
 GTTTTTTACTCAAGAGGGGAGTGGTAAAAATTAATACTCTATTGTTCATTTCTTAAATCCCGAAGACAACATCAG  
 AAATAGCTCAGGCAGACACTAATAATTAAGAAGCTCTTCTCTTCAATCTTCAAGTCTTTGCAAGTTTCCGTGGAAA  
 CATCAGTTTCTGTACCAAACTGCAAAATGAACGTTACATCACTCTAACCTGAACAGCTCACAATGTAGCTGTAAA  
 TATAAAAAATGAGAGTGTCTTACCAGGTTTCAATAAACCTTCCAGGCTGCAATACCGCAAGGTTTTCAGTTA  
 AAGCCCTATCTGCATCTTTTATTTATAGTCAAAATGAAGCAGGCTATTCACCTCACTTTTCTTGGCTTTCTCT  
 GAGAGTTTTATTAAGAACTTCTCCCTTGGTTACCTGTTATCTTTTGCACTTCTAACATGTAGCCAATAAATCTATT  
 TGATAGCCATCAAGGAATAAAAAAGCTGGCCGTACAAATTACATTTCAAAACCAACCCCTAATAAATCCACATTTT

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**FIGURE 1049B**

CGCATGGCTCATTACCTGGAATAATGCCITTTATTGAATATGTTCTTATAGGGCAAAACACTTTCATAAGTAGA  
GTTTTTATGTTTTTGTGCATATCGGTAAACATGCAGCTTTTCTCTCATAGCATTTTCTATAGCGAATGTAATA  
TGCCTCTATCTTCATGAAAAATAATATTGCTTTTGAACAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1050**

MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKNGYVQSPRFPNYSYPR  
NLLLTWRLHSQENTRIQLVFDNQFGLLEEAENDICRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKIT  
FKSDDYFVAKPGFKIYYSLLEDFQAAASETNWESVTSSISGVSYNPSVTDPTLIADALDKKIAEFDTVEDLLK  
YFNPESWQEDLENMYLDTPRYGRGRSYHDKSKVDLRLNDDAKRYSCTPRNYSVNIREELKANVVFFPRCLLVQ  
RCGGNCGCGTIVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTALVDIQLDHHERCDCICSSRPFR

## FIGURE 1051

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTACAGCCCGTTCCCTCCCGAGCCCGGGACAGGCTGGGCGCGCGCCGTGTGAGTGAGCGGGACTCAGGGCAGAAAGTGCCCTCACTGCGTTTTTTTTCCCTTTATCCAAAGAACGGGGCAGTTAGTAGCGTTGCCCTCCTGTGCGCCGGTGGGACGGGGTGGTGGCGGAGTGGTTCGCTTTTCTTTAGAACTGTGAGCCCTTTTTTTTTTTTTTTTTTCTTCCCTTTTTAGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCTTCTCTGCCACCCCTGCCCCAAGGTCGCCCTCTGCTTCGCCCTGTCCCGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCCACTCGCGCTGCCGACCGCTGAGCCGCGCTGTGCCAATATGAATAGGGTCAACGACCCACTTTATTTTAAAGAGATTAAGCCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTGGAGATAGGACGCGTGACCAAAACCAAGACGGCCATGAAGTGAGATCGTGCAAGTAGCAGATAAAACGGGCAGCATCACTATTCCGTGTGGGATGAGATCGGAGGTCTTATACAGCCAGGGGATATTATTCGGTTGACCCAGAGGGTATGCATCCATGTGGAAAGGATGTCTGACACTTTATACTGSAAGGGTGTGTAACCTCAAAAAATTGGGGATCTAGGTGCGGTGACGGCAGCCGAATGCGAGATTCCATACACTACTACCTCGGTAATGATCTCCACCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGAAGATTTTGATGTGGTTATTCAGAAGTGCCAAATTTCAAGTGAACCCCAACCCAGATTATCGAGGACAGCAGAAAGGGGCACAGAGTGAACA GAAGAATAATTCATGAATAGTAATATGGGTACAGGTACATTGGACCAGTGGGAAATGGTGTTCACTAGTGGCC TGAATCAAGGGAACACCAAGTTTTCACATGCTGGCAGAAAGCAATGGCCGGGACTATATAATCCCAACTACAAGGACAGCTAGTAATCAAAACAGTAGTGACCAACAATAAGTAATAGGCAGGACCCCTGGAGAGGCTTTAAAAGTAGCCATGTCTAAATCTCAATGTAAGTATTTTATACTACATGCGCCCTACTTGAACACTTATTGCACITTTATTTATGTATACTGTGAAAAAGTAGCTCCTTTATTGGGTTTCTTTTATATTCTTGGTTTGTGTAAGAAATGGTTGTTTTTATA GCAAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTATTTTTAGAG TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTCATGGGTGAGTTACTTAAGACATCAGCTTTAT AGCCTCTATGAGTCTATCTTCGTATAAGTTTGAATAATTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC TTGTATTGAGATATTGCCAATAAAGCAATAACCATCAAAAAACAAAGAACTTGTCAATGCTAGCAGTAATTTT TGAGTGTTTGTGGCTCTCGGAATGATTGACTTCGTTTCAGTGACTACTATTAAGATTTTCCAAGGACTGACTCATC CCAAAATTTTGTGTTGATTACCAAAAAACAGATTCCCTATCAGAATTGGAATAGAATGTGATCTCTATTGCAAC AAGTAATTTTAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGATTATCAACTTTTGGGATTACA TTGGAGGAAAAATTTAAACTGGGGCCTTGAATATTTATTTTTTGAAGTACCATGTTAAATCTGAAGTATAATTT TGGGGGAGTTATAAAGTTATGATAAAACATTCACTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG AGGTGAGTAAATTTGAATTCATATAGTAACATGCAGTCTGAAGTCTAGTTACTTAATAGGTACTCAGGCTGGAG TGAATACTCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTCACATAGC CTATTATAGCAAAAGTTTAAAGAAATGGCTCTATCAAGAAGCAATTGCAGCTTTATTTCAGAAATATAAAAGTGA ATTTATGTACATGTCTAAGTGGTACCACCTTCCCTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT TGAATATTATCTCTTGAATTAAGCAATGTGTTAATGTTAAACAACTACGTAATTTTGGCCCTTTCAAGTACTTA CAGTGGAGAGCCAGTACATCTTAAGTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTG TGCTTTGTTTTTTTTTCCACTTCAAAATCAAAAAAAGTAGATTTTGTTTTCTGAAAACCTCCATAGCATTTGAAT ACAAAAGTTGTGCGCAGATGTTTGGCCCTAATCTGTTTAAACAAATATTTCAGTACACACTATGTATTAGG CACTGTGTGGAAGTGTAAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTGTGGTCTATAGTACT TTTGTAAGTGGGGTTACAAAAATTTATAGAAATTTTTTCCCTTTGTTTCATATGCATATTCATGATTATAATTTGGC TTGTTGTGATTAAGTGTTCCTTAAGATTTTCACATACTCAAAAGAAAGTTGTCTTAAGGCTGGGATAGGAGTAGAGAGTATGTTTCATAAAATTTGATGTTTAAAGAACTTTAATAAGTATGAGGCAACACTTTAAATTTTGTGGGAGAAACAGCATTAAGGTGATTTTAAAGAAAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1052**

MNRVNDPLIFIRDIPGLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT  
RGYASMWKGCLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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**FIGURE 1053**

ATTCCCCAACCTGATAGCCCTCCGCGACGCATTACGCACC CGGACAGCTGGAGAGGCCGAGGCGCTTCGCTTT  
GATTTCGGCGCCTCGCCCTCGCGGGGAGAGATTGGCTGCGGCCGCGGGACGGGGTAGTGAGCGCTCACTTCCT  
GCCGCTGCCAGGCGCGTCTCCCGCGCGCTATGACGGCCAGCGCACAGCCGCGGGCGCGGCCAGGAGTCGGA  
GTCGGAGTCGTGGTGACCACTGCAAGCATCCGCGTTGCGTCTCTGGGGAAGAGGAAAGGCTCGGTTGAGCT  
GGCAGTTTCCAACTCCCTGGAGGTCATCTGGAGTTCGGTGAACCTGGGAAGAATGTGCTCAAAGGGAACCTGG  
GAAGAAGCAGCTCTTCACTGAAAAATGTTCACTTTGCCTCAGTTGTGAATCTTTTCATTGAGAAGGAGAATTAC  
CATTATGTTACTATATTAATGAAGGAGAAGTGGATGTGACTCATGATTGAGAACCAAGAATGTAGAGCCTGAA  
AAAAATGAAAGTTGGGAGTGGGTTCTTGGGAAGAATACTCTCCCTGGACCAGCTTTTCTGGGAGTGC GTTGT  
TTAAAGAACCAAGGCTATGATCCATTTAAGAAGATCTGAACCATCTGGTGGGATACAAAGGAAATCATCTCTAG

GTGGCCGAGAAGATTGATTTTCTTTAAAAAGACAAGAAATAGGTCTGGTTAGGGAATGAAAAATGTATACATT  
CGGAACAACCTCCATTTTATCTAAAAAGTTCTTTGATTCGCCAGTTTATTTCAGCTCTCTTAATGTATCCCCAC  
TCTTTCAGCCAGTACTTGAGAAAAATTTTCTGAAATATGTCATTGAATTGTATTCAGACACAGAATACATGATA  
AATACTGATATTATGGGTAATCTGCTTTCCATATTTACCTATGATATTTACTGTGCAGTTTGTCACTACTAGCTT  
GCATGGAGTAGGATGCAGTCAAATTTGCCTTAGTGTTTCTGTTCAAATAGAGACCTGAATCAAATATTGTAGTT  
TAGGTTCAAACAGAGTATGGCTGTTGCAAAATTTACCAAATTTGTTGATTACCTCTTTTATTAAGAAATGTTGG  
GGAGAGGGTAATATATTGTGACAAATTTTGCAACTTACAGGGAATAGGACAGGTCATTAGGGTGATTTCCACAG  
TTTCCAATTGAGAATCTAAACCAAGAGAAGTGAGACAAACCATCTAATATCTGATCATGCTATTAATAGGCTGT  
GATGTTGAGTTTCTCACTTACTCTTTCTGAGGTCAGGGTCTTATATGAAGAGATTATATATATGAAGAGATT  
CGCTAGAGCAGTGGTTGTCAAAGTGTGGTCTGGGGGGCCTCAAGAGCCTTCAAGGGTATTCTAGGTCAAAGC  
TGTTTTTATAACACTAAGACATTATTTCACTATTTATAGCTTTTCTTTTTTTTATTTGAGAAGGAGTCTTGCTC  
TGTGCCCCACATTGGAGTGCAGTGGCAGCATCTCAGCTCATTGCAGCCTCCGCCACCTGGGTTCAAGCAATCTC  
CTACCTCAGCTTCCCAGTAGCTGGGATTATAGGCACCCACCACACACCTGGCTAATTTTTGTATTTTGTAGTGG  
AGACGGGGTTTACCATGTTGGCCAGGCTGGTCTGGAACCTCGAGCTCAAGTGATCTGCCATCTCAGCCTCCC  
AAAGTGCTGGGATTACAGGTATGAGCCACAACGCCAGCCATCATTATCTTTTCACTCATTTTTTCATAGTA  
TGCAGAGGAGTTTTCAAGAGGCTATCTGGTGTGATTTGTAATAGGCTGAATGCAAAAGCAGATACAAGATTCCA  
GCTTTCGTCTGTATCAGACATTGAAGAGATTGGAGAAATGAAAGCAGCAGTACTCTTCTCACTAATTTTTAT  
TGTGGTTAGITAGAAAAATGTTATTTTGTAGGGTTTTAATATGTGAAAAAATAAAATTAGCTATTTCG

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**FIGURE 1054**

MTASAQPRGRRPGVGVGVVVTSCKHPRCVLLGKRKGSVGAGSFQLPGGHLEFGETWEECAQRETWEEAALHLKNV  
HFASVVNSFIEKENYHYVTILMKGEVDVTHDSEPKNVEPEKNESWEWVPWEELPPLDQLFWGLRCLKEQGYDPFK  
EDLNHLVGKGNHL

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**FIGURE 1055**

GCCCGCCGCGCCCCGACCAGCCGGGCTCGGGCAGCCACTCACCGGTGTCGCCGTCGCGTCTTCTCCCGG  
GTCCCGGCC**ATG**GCGCTGAGTGAACCATCCTGCGCTCCTTCTCCACTTTCGCCAGCCGCTGCCGCGAGCGCGC  
CTGCAGGAGCGCTGGCCGCGCGCAACCCGAGTCCGGCGGCACCGACGACACTCAACAGCGTGTGGACTTC  
ATCCTGTCCATGGGGCTGGATGGCTGGGCGCCGAGGCCGCCCGGAGCCGCCCGCGCGCCCCGCGCGCTGCG  
TTCTATTACCCCGAAACCGGCGCGCCCCGCCCTACAGCGCCCCGCGGGTGGCTGGTGTCTGAGCTGCTGCGA  
CCCCGAGCTGGATGCGCGCTGGGGCCCGCACTGCACGGCCGCTTCTGTGTCGCCGCCCGCGCGCTGGTCAAG  
GCCGAGCCCCCTGAAGCGGACGGCGCGCGCGGTACGGCTGCGCCCCGGGGTGACCCGTGGACCGCGCGCCCTC  
AAGCGGAGGGCGCCCGGGCCCGCGCGCTTCGTGCTGCGAGGTCGCCGGGGCGCCGCCCGCGCGCGCCGAC  
ACACCGCGCTCAGCCCCGACGGCCCCGCGCGCTGCGCGCGCCGGTCCGCGCGCTCTTCTCCCGCGCGCTTC  
GGTGGCCCTGGTTTCGGCGCGCCCGGGCCCGGCTGCATTACGCGCCGCTGCGCCCCAGCCTTCGGTCTCTTC  
GACGACGCGGCCGCCCGCGCGCAGCCCTGGGCTGCGCGCCCCCGCGCGCGGTCTCTCACGCGCTGCG  
TCCCCGCTGGAGCTGCTGGAGGCCAAGCCAAAGCGCGCGCGCTCTTGGCCCCGAAACGCACCGCCACTCAC  
ACCTGCAGCTACGCGGGCTGCGGCAAGACCTACACCAAGAGTTCGCATCTGAAGGCGCATCTGCGCACGCACACA  
GGTGAGAAGCCCTACCACTGCAACTGGGACGGCTGCGGCTGGAAGTTTGCGCGCTCAGACGAGCTCACGCGCCAC  
TACCGAAAGCACACGGGCCACCGGCATTCCAGTGCCATCTGTGCGATCGTGCTTTTCGGCTCCGATCACCTG  
GCGCTGCACATGAAACGGCACAT**GTAG**CGGGACGCCCGCCACCTGCGGCGGGCGTGGCGGGTCCCACGCG  
CCGGGCGCGGCCCCCTCCCAAACCTGTGACTGGTATTATTGGACCCAGAGAACCAGGCGGGCACAGCGTGGCTA  
CAGAGGGTCTCCCTCGATGACGACGACGACGCCACCACCCAGCCCCGCTCTGTGACTGAAGGCCCGGTGGG  
AAAAGACCACGATCCTCCTTGACGAGTTTTGTTTTTCAAATGGTGCAATAATTTAAGTGGCATCTTCTCTCCCA  
CCGGGTCTACACTAGAGGATCGAGGCTTGTGATGCTTGTGAGAAATAAGGGCTTAATTTGTACTGTCTCGGGC  
ATTTTTTATAATTTGATATAGTGACTGACAAATATTGTATTACTGTACATAGAGAGACAGGTGGGCATTTTTG  
GGCTACCTGGTTCGTTTTTATAAGATTTTGCTGGGTGGTTTTTTTTTAAATAAAAAGTTTTCATCTTTT



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**FIGURE 1056**

MALSEPILPSFSTFASPCRERGLQERWPRAEPESGGTDDDLNSVLDFIILSMGLDGLGAEAAPEPPPPPPPAFY  
PEPGAPPYASAPAGGLVSELLRPELDAPLGPAHGRFLLAPPGRLVKAEPPEADGGGGYGCAPGLTRGPRGLKRE  
GAPGPAASCMRGPGGRRPPPPDTPPLSPDGPARLPAPGPRASFPPFGGPGFGAPGPGLHYAPPAPAFGLFDDA  
AAAAAALGLAPPAARGLLTPPASPLELLEAKPKRGRRSWPRKRTATHTCSYAGCGKTYTKSSHLKAHLRHTGEK  
PYHCNWDGCGWKFARSDDELTRHYRKHTGHRPFQCHLCDRAFSRSDHLALHMKRHM

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**FIGURE 1057**

CGGAATTGGTGGGTTCTTGGTCTCACTGAGTTCTAGAATGAAGCTGCAGACCCTCGCAGTGAAGTTACAGCTCT  
TAAGGCTCTCTGACTGCCACCCCTGCCTGCCTGCCCGGCCCTGCACAACATGCAGCCCTCCGGCTCGAGGGTCC  
CGGCACGTTTGGTGGTGGCCTCTGCTGAGTCTGCTGCTCCTGCTGCTGCTGCTCCAGCCTGTAACTGTGCCTA  
CACCACGGCAGGCCCCCAGAGCCCTCACCACGCTGGCGCCCCAGAGCCACACCATGCCGGGCACCTACGC  
TCCCTCGACCACACTCAGTAGTCCCAGCACCCAGGGCTGCAAGAGCAGGCACGGGCCCTGATGCGGGACTTCCC  
GCTCGTGGACGGCCACAACGACCTGCCCTGGTCTAAGGCAGGTTTACCAGAAAGGGCTACAGGATGTTAACT  
GCGCAATTTACAGTACGGCCAGACCAGCCTGGACAGGCTTAGAGATGGCCTCGTGGGCGCCAGTTCTGGTCAGC  
CTATGTGCCATGCCAGACCAGGACCGGGATGCCCTGCGCTCACCTGGAGCAGATTGACCTCATACGCCGAT  
GTGTGCTCCTATTCTGAGCTGGAGCTTGTGACCTCGGCTAAAGCTCTGAACGACACTCAGAAATGGCCTGCCT  
CATCGGTGTAGAGGGTGGCACTCGCTGGACAATAGCCTCTCCATCTTACGTACCTTCTACATGCTGGGAGTGGC  
CTACCTGACGCTACCCACACCTGCAACACACCTGGGCAGAGAGCTCCGCTAAGGGCGTCCACTCCTTCTACAA  
CAACATCAGCGGGCTGACTGACTTTGGTGAGAAGTGGTGGCAGAAATGAACCGCTGGGCGATGATGGTAGACTT  
ATCCCATGTCTCAGATGCTGTGGCACGGCGGGCCCTGGAAGTGTACAGGCACCTGTGATCTTCTCCACTCGGC  
TGCCCGGGGTGTGTGCAACAGTGCTCGGAATGTTCTGATGACATCCTGCAGCTTCTGAAGAAGAACGGTGGCGT  
CGTGATGGTGTCTTTGTCCATGGGAGTAATACAGTGAACCCATCAGCCAATGTGTCCACTGTGGCAGATCACTT  
CGACCACATCAAGGCTGTCAATTGGATCCAAGTTCATCGGGATTGGTGGAGATTATGATGGGGCCGCAAAATCCC  
TCAGGGGTGGAAGACGTGTCCACATACCCGGTCTGATAGAGGAGTTGCTGAGTCTGGCTGGAGTGAGGAAGA  
GCTTCAGGGTGTCTTCTGTGAAACCTGCTGCGGGTCTTCAGACAAGTGAAAGGTACAGGAAGAAACAAATG  
GCAAAGCCCCCTTGGAGGACAAGTTCGCGGATGAGCAGCTGAGCAGTTCCTGCCACTCCGACCTCTCAGCTGTGG  
TCAGAGACAGAGTCTGACTTCAGGCCAGGAATCACTGAGATTCCCATACACTGGACAGCCAAGTTACAGCCAA  
GTGGTCAGTCTCAGAGTCTCCCCCACATGGCCCCAGTCTTGCAGTTGTGGCCACCTTCCAGTCTTATCT  
GTGGCTCTGATGACCCAGTTAGTCTCGCCAGATGTCACTGTAGCAAGCCACAGACACCCCAAAAGTTCCCTGT  
GTGTCAGGCACAAATATTTCTTGAATAAATGTTTTGGACATAGAAAAA

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**FIGURE 1058**

MQPSGLEPGTfGRWPLLSLLLLLLLLQPVTcAYITPGPPRALTTLGAPRAHTMPGTyAPSTTLSSPSTQGLQEQ  
ARALMRDFPLVDGHNDLPVLVRQVYQKGLQDVNLRNFSYGGTSLDRLRDGLVGAQFWSAYVPCQTQDRDALRLTL  
EQIDLIRRMCA SYSELELVTSAKALNDTQKLACLIGVEGGHSLDNSLSILRTFYMLGVRYLTLTHICNTPWAESS  
AKGVHSFYNNISGLTDFGEKVVAEMNRLGMMVDLSHVSDAVARRALEV SQAPVIFSHSAARGVCNSARNVPDDIL  
QLLKKNGGVVMVSLSMGVIQCNP SANVSTVADHFDHIKAVIGSKFIGIGGDYDGAGKFPQGLEDVSTYPVLI EEL  
LSRGWSEELQGVLRGNLLRVFRQVEKVQENKQWQSPLEDKFPDEQLSSSCHSDLSRLRQRQSLTSGQELTEIP I  
HWTAKLPKWSVSESSPHMAPVLAVVATFPVLILWL

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FIGURE 1059

TATTTTGTGCAGATGTGTTGAACCTCGATTAAAGATTGCATTATGACATTCTTGAAGACCGAGTTCATCAGGACTT  
ATTGTTGACTACCACAACTCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTAAATCTGAGAAGCAGTTTG  
TCAAAATTGTAACCTCGACTCCGAGCAGGAAAAATATCTCCATGTTGGGAAGGGTTAAATTTGATTCGGAGATGGAA  
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTGGTTATCAGAAGAATTTCAAC  
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTGAGAAGATCACTCATGTGTTCTCCTCCACCATTGATGGCTGGTCTC  
CTGCGGTCCCTGCTTACGGACAGGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT  
CCATTGTCTGTATATAATGCTCTGCTTCGAAGGTGACACTGTTATTGTTTGTCTGGCCATTATGTGGTACATGGC  
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC  
AAAGGCGACACTTTTGTGGACTGCCTGGTGTGATATTAATCTCAGGCATAAGATTTGTTTCAGCATGATGCT  
GTAGAGGGAATCTTAATTGCTCACCCTGGTAAGACTACGCTGGAAACTGTGTGCTGCAGTGTGAGACGACCGGA  
GTCACAGTGGCGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTATATGGCGCCAAGGGTGTGTGATAGAA  
ATCTACCCCTGGGAGTCAGTGCACCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCTCATTAAAGGAC  
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAAATGAAGGTTATGGT  
GTTGCTTGGTGAACCTACAATCTTCTCTGACCTGCAAGAAAATGCTGAAGATGGAATGAAGAAAATAAGCG  
CTTAAATTCAGACAAGTGGAGAGCCAGATGTGGCTGAAAGAGTGGATCTAGAAGAGCTGATTGAGTGTGCACT  
GGTAAATGGAGCTTTGTGCAAGAACTGACCTTCTGAGCAAGTCGAGGGAAATTTGTGAATTTGAAATGAACTA  
ATTGCTGCCTCCACACAGAAAGCCAGATAAAGAAAGAAAGGTTGAGTGAATGGGGATCACGCAAGCTGATGAC  
AACTTAATGTACAGGAGATGTTTGTGGGATTGTGGGAACCAAGTTCAAGTGAATGGGAAGGTAGTTTGGC  
ACATTTCCTTTTCTGACTACAGTGATGTAAGTAGATAGCAAAATCTGGATTTTGCACATGCTGCCCTAAGAAATCA  
CTGCTGCCATTGTAGTTTGTCTGTATTGTCTGTATTTTATATTTGATTATTTGGGCTTGAGTGAAGGTAGATTTA  
TTTCCATTTCAGGTTGTGCACATAAAACACTCCCTCTTTATAAGAAAATCATAAATGCATATAAAATAGAAAA  
TATTTGGAGATTGCTTATCTGAAAGCTTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTGGTTACT  
TTTTAGTGTAATTACCTTTAGCACTTCAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCATAAAAAATG  
CAATAGGTGTCTATGTACAGCACTTCTTCTTAGAGTTGCCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC  
CTGATTTTGCATAATACTGTCTTAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA  
TTGAGACGTCAATGGGACGCATTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT  
TGAAGCAGAAATGAAATGTGTTATTCAGAGCCAATGTTGTACATAGAGCAATTTTCACTATTGCTGAATGGGAATG  
ATTAATAAACAGGATATTTTCGGGCCAGGCGGTGGCTCACGCTTGAATCGCAGCACTTTGGGAGGCTGAGGCAG  
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCTGTCTCTACTAAAAATAAAT  
TTAAAAAAATTAGCTGAGTGTGGTGGTGCATGTCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC  
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTTGGGCACAGAGCGAGAC  
CCAGTCTCAAAAAAATAAAAGATATTTTCTCTTACCCTTACAGTATTCTGATTATATTCTGACACAGTCAAA  
AATGATTAACTGTACAACCTGTATCTGCTGGGTGTTCTTGTATTATCATATTGTAACACAGCTTTAAAAATATTTAT  
ATTTTAAAAACTGTATGTACATTAAATATGCCTAATGATTAAATATATAGTGATGAATAAAAAAATAAAAAA  
AAAAA

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**FIGURE 355**

MQAFLKGTSTISTKPPLTKDRGVAASAGSSGENKKAKPVPWVEKYRPKCVDEVAFQEEVVAVLKKSLLEGADLPNLL  
FYGPPGTGKTSTILAAARELFGPELFRVRVLELNASDERGIQVVRREKVKNFAQLTVSGSRSDGKPCPPFKIVILD  
EADSMTSAAQAALRRTMEKESKTTFRCLICNYVSRIIEPLTSRCSKFRFKPLSDKIQQQRLLDIAKKENVKISDE  
GIAYLVKVGSEDLRKAITFLQSATRLTGGKEITEKVITDIAGVIPAEKIDGVFAACQSGSFDKLEAVVKDLIDEG  
HAATQLVNQLHDVVVNNLSDKQKSIITEKLAEVDKCLADGADEHLQLISLCATVMQQLSQNC

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**FIGURE 356**

GGCACGAGCTCGGCTCCTGGAAAGATGGAGGCAGCGGAGACAGAGGCGGAAGCTGCAGCCCTAGAGGTCTTGGCT  
GAGGTGGCAGGCATCTTGGAACTGTAGGCCTGCAGGAGGAGGCAGAACTGCCAGCCAAGATCTTGGTTGAGTTT  
GTGGTGGACTCTCAGAAGAAAGACAAGCTGCTCTGCAGCCAGCTTCAGGTAGCCGATTTCCTGCAGAACATCCTG  
GCTCAGGAGGACACTGCTAAGGGTCTCGACCCCTTGGCTTCTGAAGACACGAGCCGACAGAAGGCAATTGCAGCT  
AAGGAACAATGGAAGAGCTGAAGGCCACCTACAGGGAGCACGTAGAGGCCATCAAAATTGGCCTCACCAAGGCC  
CTGACTCAGATGGAGGAAGCCCAGAGGAAACGGACACAACCTCCGGGAAGCCTTTGAGCAGCTCCAGGCCAAGAAA  
CAAAATGGCCATGGAGAAACGCAGAGCAGTCCAGAACCAGTGGCAGCTACAACAGGAGAAGCATCTGCAGCACTCG  
GCGGAGGTTTCTGCAGAGGTGAGGGAGCGTAAGACAGGGACTCAGCAGGAGCTTGACAGGGTGTTCAGAAACTT  
GGAAACCTGAAGCAGCAGGCAGACAGGAGCGGGACAAGCTGCAGAGGTATCAGACCTTCTCCAGCTTCTGTAT  
ACCTTGCAAGGTAAGCTGTGTTCCTGAGGCTGAGGCTGAGGCAGAGAATCTTCAGATGATAAACCCAGCAG  
CCGACTCGACCCAGGAGCAGAGTACAGGAGACACCATGGGGAGAGACCCCTGGTGTTCCTTCAAGGCTGTGGT  
CTACAACCTGCTGGAGATGTAAATTTGCGATTGACTTCTTGGAGGACAGCAGCATGGAGAAAGATCCTAGAAAAGG  
CCTCTGACTTCCCTCACCTCCCAACCAATCATTACAGGAAAGACTGTGAACCTCCTGAGTTCAGCTTGATTTCTGAC  
TACATCCAGCAAGCTCTGGCATCTGTGGATTAAATCCCTGGATCTCTCTCAGTTGTGATTGTTCATCTTCA  
TATGCTGGCAGGAACAACATTATAATACAGATACTCAGAAGCCAATAACATGACAGGAGCTGGGACTGGTTGAAC  
ACAGGGTGTGCAGATGGGAGGGGGTACTGGCCTTGGGCCCTCTATGATGCAGACATGGTGAATTTAATTCAGG  
AGGAGGAGAATGTTTTAGGCAGGTGGTTATATGTGGGAAGATAATTTATTTCATGGATCCAAATGTTTGTGAGT  
CCTTTCTTTGTGCTAAGGTCTTTCGGGTGAACCAGAATTATAACAGTGAGCTCATCTGACTGTTTTAGGATGTAC  
AGCCTAGTGTTAACATTCTTGGTATCTTTTGTGCCTTATCTAAAACATTCTCGATCACTGGTTTCAGATGTTT  
ATTTATTATATTCTTTTCAAAGATTACAGAGATTGGCTTTTGTGCATCCACATTGTATGTTTTGTTTCATTGACCT  
CTAGTGATACCTTGATCTTTCCCACTTTCTGTTTTTCGGATTGGAGAAGATGACCTTTTGTGCAACTCTTACTT  
TTATCAGATGATCAACTCAGCTATTGGATCTTTATTGTTTTCTCAAATAAATATTTAAGGTTAAAAA  
AAAAAAA

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**FIGURE 357**

MEAAETEAEAAALEVLAEVAGILEPVGLQEEAELPAKILVEFVDSQKKDKLLCSQLQVADFLQNILAQEDTAGK  
LDPLASEDTSRQKAIAAKEQWKELKATYREHVEAIKIGLTKALTQMEEAQRKRTLREAFEQLQAKKQNAMEKRR  
AVQNQWQLQQEKHLQHAEVSAEVRERKTGTQQELDRVFKLGNLKQQAEEQERDKLQRYQTFLQLLYTLQGKLLF  
PEAEAEAEENLPDDKPQPTRFPQEQSTGDTMGRDPGVSFKAVGLQAPAGDVNLP

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**FIGURE 358**

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAGATGGCTTCGCCACA  
CCAAGAGCCCCAAACCTGGAGACCTGATTGAGATTTCCGCCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA  
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG  
CAACAGTGCAGAGGTGAAACGGGGGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT  
GGACCATGAGTACCAACCACGGCCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTGGTCAGAAGATGAA  
GTACAGTATTGTGAGCAGGAACCTGTGAGCACTTTGTCGCCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT  
GGAAAAGGCCAAGGTTGAAGTCGGTGTGGCCACGGCGCTTGGAAATCCTGGTTGTTGCTGGATGCTCTTTGCGAT  
TAGGAGATACCAAAAAAAGCAACAGCCTGGAAGCAGCCACAAAATCCTGTGTAGAAGCAGCTGTGGGGGTCCCA  
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC  
CTCTGTTTCCCTCTCTCGTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG  
CCCTTCAAAAA



**FIGURE 359**

MASPHQEPKPGDLIEIFRLGYEHWALYIGDGYVIHLAPPSEYPGAGSSSVFSVLSNSAEVKRGRLEDVVGGCCYR  
VNNSLDHEYQPRPVEVITSSAKEMVGQKMKYSIVSRNCEHFVAQLRYGKSRCKQVEKAKVEVGVATALGILVVAG  
CSFAIRRYQKKATA

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FIGURE 360A

AGGGGGCGGCGCTCCCGGCCATCCCTTAGCCCCGCGGCGCGGTGTGGCCGGAGGCTGCCTGCACCCGCTCAG  
 GGAGGCGCGGCTAGAAACCTCCCTCCAGAAAGAGCCGATCCCACTTCAGGTGGGGTCTTCTCGGTTGCGTA  
 CCTGGGTGGAGCCGAGCTGGTGGGCGGCGGCGAGCCGCGCTTCTGGTGATGACAGCCCCGAAATGAAAGCAGCG  
 CGGCGCGCGCTCCGAGGCGTGCAGGAGATCAGCGTCCAGCAAAATGAAGCAAGTCTCTGGACCCGGAGGAGGA  
 GGAGCGGCGGAGCATCTCTCTGCTCCGCGGTGCTCTTTAGATGAGCAGTCCCGGCGGAGCGCGAGGTGGATC  
 CGCAGAGCTGCCCCTGGGGCGCTGACCCCGCGTGACATCACAACCTGTGACAGCGGCATCAGCCCGGTACCTG  
 CTCCCGGCGCGTGCCTCCAGCGCTCTTTGTATGCCCAGACATGCGCAGGACGAGGATTCAGGCGCTCTT  
 TGAGATCAGTATCAAATATTTACTGAAATCCTGGAGTAATCTTCTCCGTTGGCAACGGTTACATCAAGCCTCC  
 GGTTCACCTGCTTCTGCGCAGCAGAGGGAAGGGCCGCCAACCATGCTACCCATCAATGTGGACCCAGACAG  
 TAACCCAGGAGAATATGCTCTCAAAGTTTATTTGTCAACTTCACCACTCAGGCTCAAGGCAAGATTCTGATCAT  
 TATGGCAGAGCCCTGGAAAAGCATTGACGAAATCTCTGCAACGTGGAGAAGACCCCAATTTGATCAGGTCAT  
 CAGCTCAATGAGCTCCCTTTCTGAGTACTGCTGCCCTTCATTCTACGTACATTATTTGACTGGTATAAAAGGCA  
 AAATGGCATTTGAGGATGAATCACATGAATACAGACCAAGAACAAGCAATAAATCAAAAAGCGATGAACAACAGCG  
 AGATTATTTAATGGAAAGACGGGACCTCGCCATTGATTTTATTTTTCTTTAGTATTAATAGAAGTTTGAAGAACA  
 GATTCACCTTCATCCTGTAATAGCAGTTTAATACATGATGTTATTAACCTGGCTTCAAGCATCTTAATATACAA  
 AGAAGGGTACCTTGGTCCCAACACTGGCAATATGCATATTGTGGCAGACCTGTATGCAGAAGTCATTGGAGTGT  
 GGCACAAGCAAAATCCCTGCTGTAAGAGAAGAAATTTATGGCGGAGCTAAAGAAATTACGGCACAAAGAGCAGAA  
 CCCATATGGTGGTTCAAAGCATATACAGCTTAATAATGGGCATGAAATCTTTTCAATTAAGATGTATCCAGTGGGA  
 GGATTTGAGGCCCTCTCTCAGTTTATGCAAGGAATGTGCACATTACTTCTCGAGGTCAAAGACAAAGATATCAA  
 GCATGCCCTGGCTGGGCTTTTTGTTGAAATACTTGTTCAGTTGCTGCTGCTTTAAAAATGAAGTAAATGTTCC  
 CTGCCCTAGAAATTTGTGGAAAGCCTGTATGACACCCAGCTGGAACCTTCTTCTCGAAAGCAAGCATCTCTTGGC  
 CTTGTACCCCTGGTGACCTGTTTGTCTGTGTGTCAGTCAGAAGCAGCTGTCTCGAAGCAGTTGGCATTCTTCT  
 CAACAACTGCTTGTCCAACCTAAAAACAAGATCCCAAGATGGCTGCAGTGGCATGGAATCTCTCTACAGATT  
 CATTGTGGTTTACATGATTTCGAATTAATGTGAAGCAACACAGCACTACTCAGAGCCGACTTATAACCATCATCAC  
 AACACTTTTCCCAAAGGGTCCCGCGGTGTGGTACCAAGGGACATGCCCTGAAACATCTTTGTGAAAATCATCCA  
 GTTCATTGGCCAGGAACGTTTAGATTTTGAATGAAAGAAATCATTTTCGATTTCTTTGTGTGGGAAACCAAGC  
 AAAAGCATTGAGTCTCAACCCAGAGAGAATGAACATTTGGTTTACGGGCATTCTTGGTCATAGCTGATAGCTTGCA  
 GCAGAAAGATGGGGAACTCCCATGCGGTTACAGGAGCCGCTTCTTCTTCAGGAACACGTTAAGAGTAAGAAAG  
 AACATATTTGAGTAAACACTAACTGAAGAGGAAGCCAAAATGATAGGCATTCGCTTATATTACTCTCAAGTACG  
 AAAAGCTGTAGACAACATTTTAAGGCACCTTGATAAAGAAGTAGGAAGGTGTATGATGCTGACTAATGTACAGAT  
 GTTAAACAAGAACCGGAAGACATGATCAGGGGTGAGAGAAGCCAAAAATAGATCTTTTCAGGACCTGTGTTGC  
 TGCTATTCTCGACTGCTTCTCGTGGGATGCAAAAATCTGAACTTATGACTTACTGGGTAGGCTCTCTATCTCA  
 TATGGATGATGAATTCGCACATATGACAAAAATCTCTTTCAGGGTTACTTGTGACTTCTCAGATTGGAGGGA  
 AGATGTACTATTGGCTTTTACCACTTCTCTGCTCCGGGAAGTAAATGATATGCATCACACACTCCTTTGATCGTC  
 CTTGAAGTTGCTGTCAGCTGCTCACCCAGTGGAACTGGAATCTGAACTTATGACTTACTGGGTAGGCTCTGATGAACG  
 CAACAAAATCAGAAATTCAGAGCTTATCGCAAAATGGCTCCAGTCACAGAATTCAGTCCGAACAGGCTCCCACTG  
 CAGTGTACTCCACGCTGTAGAAGGTTTGTCTTGGTTTACTCTGCACTTGCAGTTTCCAGGCGGCACACGCAAACTGTC  
 CGTTTAAATCTCAAGGAATTTGAGCGTTGTTTATTTGCCCTGGGCGAGCCTGAGGATGACGACAGGCGGATGAT  
 TGATGCAATGGATCAGCTAAGTTCTTCCATTCTAGAAAGTTTATTTCATGAGCAGTTCTCGGATTCAAGCAACAT  
 ACCACTACCCCAATGTGGAATGACAGTGGTTGGTGAATGGAACGCACTGCTGGTCAATAGCCATTATGATGT  
 GAAAAGCCCTTCCCATGTCTGGATATTGACACAGCTGTGCAAGACCCCTGGGTCTCTGCTCTTTCAGCTTCTCT  
 CGGCGAGGAGAATCTAACCAAGCATGCCCAAGCCTCAGCTATGCTTGGCTTATGCTCTTCACTCGGCTTCCA  
 TCGGTTGATGCCCTGCTGGTGGACCAAAATAGCCCAATTAATGCCAAGAAACAGCAGCTGCGGCGGCGGAGACAA  
 CTAATGTTACTTTTGGGAGAAATTAACATAATCTTTGTTTGGAGTTGCAAAACCCAGTATTAAGAGCCAGGACA  
 CTTAAGAGCTTCCATCCAGAAATAATGGCGACCACACCTGATGGTACAGTGAGCTACGATAACAAGGCCATAGG  
 CACCCCATCGGTGGGAGTTCTGTTAAAGCAGTTTGGTGCCTTTGATGAGATGAGAGCAATTGAGATCAGAGTCT  
 CTTAGTTTATAGGATTTGGAAGAACAAATCCCTTGTTTTCAGAGAATTTGGTAGAAGACTTCATCCATTAATGAA  
 AGAAGCTCTGGAAGAAGACCAGAGAACAAGAACGCCGAGAACGGCGAGACTTGTTAAGGCTACAACACTTCTG

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FIGURE 360B

AATTTTGAAC TTTGGCTGATGCTGGTGTAAATGACAGCACAAATGGAGCCCTAGAGCGGGATACTTTAGC  
CCTGGGAGCTTTGTTCTTAGAATATGTGGACTTGACCCGATGCTCCTAGAAGCTGAAATGACAAAGAAAGTTGA  
AATTTCTTAAAGATATCCGGGCACATTTTAGTGCAATGGTGGCCAACTTGATTCACTGTGTTCCAGTTCCACCACCG  
AAGATTTCTCTTCCCCAGCAAAGCTTGAGGCACCACCTTTTCATCTTTATCCAGCCAGTGGGAGGACCCCTTCAG  
CATTATGTTCACTCCTCTGGATCGTTACAGTGACAGAAATCATCAGATTACAAGATATCAGTATGTGTGCTATAAA  
AGCAATGTCAGCAGTACTGTGCTGTGGCCCTGTCTTTGACAATGTGGCCCTTCCCCAGATGGCTCATATATAA  
ATGGCTTGACACAACTTTGGCTCTGCAAGATTACAGAGTTTCACAGTTTGGCTGCGAAGTTGTTGTCTGTCTACT  
GGAACTTAACTCTGACCAAAATAATCTTTTAACTGGGCAATTGACCGATGCTACACAGGTTCCATCCAACTTGC  
ATCTGGCTGCTTCAAAGCCATAGCAACTGTGTGTGGAAGCAGGAACATATCCCTCGCAATAGTGACATTTGTTAAA  
CCTTTGTTCTATTCAAGGCCCTGCAGCCAACAGAGAGATTATGAAATCTCCATGCAGCTCATGCAGATCTTTGA  
AGCAAAGCTTTTTGTATACTCAAAGAAAGTCGCTGAGCAAAGACCGGGGAAGTATTCCTATGGAACACACGGCCCC  
GTGCGCACCCCTCTACAGCGTGCTCACTGCCCTCTTGTCACTGTGAGCTGCGCCAGGATGTACCCCTGAGCTCACT  
CCCCCTCTCTCAGGTAAGCCAGCGATTCCCCACAACACACCCCAACGGGCGCCAGATCATGCTTACCTACCTGC  
TGCCCTGGCTGCACAACATCGAGCTGGTGGACAGCAGGCTCCTCCTCCGGGTGAGCCCCAGCAGCCCGAGGGA  
CGAAGTCAAGGACCGGGAAAGTGACGTGACTGCTTCTCACGGCTGAGGAGAAATGGCTGGGCCCTCCAGAAGC  
CACGCTCACTGGTCTGAACAACCTCATGTACATGACGGCCAAAGTATGGAGATGAAGTTCTCGGGCCAGAAATGGA  
AAATGCTTGAATGCTTTAGCCCAACAAATGAGAAATGGAGCAACAACCTGAGGATCACCTTGCAGTCTCTGATTAG  
CCTCTGGGGGTGACGACGACACAGTTCTCCTACCTTATATTAAGAAAGTGGAATATATCTTGTGCGCCGTAAACA  
CACCATTCAAACCATGGAAGAGCTTCTCTTTGAGCTGACAGCAGACAGAACCCGTGAACCCCATCGTCCAGCATG  
TGACAACCCGCCCTTCTACCGCTTACCGCCAGTAGCAAGGCTTCCGAGAGCCCTCAGAACCCCTCATGAGC  
CAATACAGTGGTTGCTGCGGTCAGAAATTTCCAGATGCTGAGGAGAACAAGATATTGAAGAATCTGATGAAAG  
GTTTAGTAATGTCATCAGAGCCCACTCGCTCGCTGAGTCAAGATACAGCAATAGCTCTGGAGGATCCTACGATGA  
AGATAAAAAATGACAAATTTCCCTACACGGGCTGTTGCTGACTATTACAGAGACCAAGCAGCGCCGACGCCCT  
ACCGATGCTTTGACTGAGGATGCTGGGCCCCCTGGTTGACTATCTCCCGAGACCATCACTCCCCGGGGCC  
ACTCCACAGGTGCAATATTGCTGTAATTTTATGACTGAAATGGTGGTGATCACAGTGTACGAGAAGACTGGGC  
GCTTCTATCTACCAATTATTACTTCACTGCTGCTTCTTAGGTTTAGACCACTACCGGCTGAAGTCTTTGAACACAG  
CAAAAAAATGCTTCTTCACTCTTGATTGCCCTCTCTTGCAACAGCAATTTCCATTCCATTGCTCCGTGCTCCT  
CGAGACCCGAGAGATGGGTGAAGCTAAGACTCTAACCGTGACGCGAGCCTACCAACCTGAATATCTCTATACAG  
TGGCTTTGACTTCTTGAGAGGACAGTCACTCCCGGTGCTGACTCAGGGCTAGTTCAAGCTCCACCTCTC  
TAGCATCAGTCTGGGAGGCGCAGTGGAAACCTCCACAGATGACCCAGGAGTGAAGATGTGGACAGCAGTGC  
TGAAACAGATGAGAAGGCAACAGCTCATTTGAGTTTCTACGACCAAGGCAATTTGGTCCACTTTGGTGCCATGA  
AGACATCACACCTCAAAAATCAAAATCAAAGAGTGCTGAACAGCTCACTAATTTTCTACGTACGTTGTATCTGT  
ATTTAAAGATTCCAATCAGGCTTCCATCTGGAGCAGCAGTTGAGTGAAGTTGCATGTGACAGACGCCCTCGGAAG  
CTCTTCAAGGCACTATGCTGGTGGTCTTCCAGATTTCCGGGCCCTCAAGCAACCTTGTGACGACATGCGCTT  
ATCTGACCTTCTCTCAAGATTGGTGAGGTTGATAGGAAACATGGAGATGAGATTACGGGTTATGTAATGGAAGC  
GCTCCTAACTTGGAGGGCGGTGTGGTAACTTGTCTGACTGCTTGAAGAACAGTGACCTCCTTAACCTGTTATGTC  
CCGCTCTTCTCACCAGATTTAAGCTCCAGCAGTAACTAACGCAAGCAAGGACAGGCAACCACTAAACAT  
GAACCCGGGAACCACGAGCGGCAACACCGCAACTGCCGAACGAGCGCGCATCAACGAAGCTTCTGTGCCCAA  
GAAGTTTGGTGTCATCAGCAGGATCTCTGACCCACCTCGAAGTGCCACACTGGACAGAAATCAGGCTGTGATCCCA  
ACAAGGCTCTCTCCAAAAGCAGGAAGCTCATCTCCTTTGAAGGACAGTCTCAGGACCACTCCCAATCAAAACA  
TCCCACCAACCTGCTGGCCACCATATTCTGGGTACAGTGGCCTTGATGGAGTCTGATTTTGAATGTTGAATACT  
TATGGCCTTAAGGCTGTTGAGCAGACTACTGGCACATATGCCACTCGATAAGGCTGAGAACCAGGAAAAGCTTGA  
GAAACTCCAGGCACAGCTGAGTGGTGGGCCGACTTCTCCGGGCTGCAGCAGCTGCTGCTGAAAAGATTACATCCCT  
CACCACCACAGACCTGACCTGCAAGCTTTCAGTCTGCTGACACAGTGTCCAAAATATCCATGGTGGATGCATC  
CCACGCTATTGGGTTTCCACTGAATGTCTTGTTGCTCTCTGCCCTCAGCTGATTCAAGCTTTGAAAATCCCAATCA  
GTTCTGAAGGATATAGCCGAAAGGATTGCTCAGGTTTGTGTTAGAAGGAGAAGAACCCCAACTTTCAAATCTTGC  
ACATGTCATGACTCTTTATAAAACGCACAGCTACACGAGGGACGTGTGCCACGTGGGTCAATGTGGTCTGTGCATA  
CCTTCATGAAGCATATGCTGACATTACCTTGAATATGTTTACCTACCTGGCAGAGCTGTGGAGAAGGCCCTCCC

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**FIGURE 360C**

TAGTGTGCAGCAGCCCTGCTCCAGGTGATCTACAGTCTTCTCAGTACATGGACCTTTCTGTCGTTCTCTGCAAA  
ACAGTTTCAATGTGGAAGTTCTGAAGACAATTGAAAAATATGTGCAAAAGTGTCTACTGGAGAGAAGCTCTGAATAT  
CTTGAAGCTGGTAGTTTCTCGGTGAGCAGCCTTGTTTTACTTTCATACCAGCAGTGAACCTCTCAAAAATAGA  
AATACATCGAGTGGGACTAGTGCTTCCAAGGAATTACCTGGGAAAACCTTGACCTTCCACTTCGATATTTCGGA  
GACTCCAATCATCGGGAGGCGGTATGATGAGCTGCAGAAATTCTCTGGGCGTGATGGGAAGCCAGGGCCATGGC  
CGTCACCCGGGAGCATCTTCCACTTCTCAGGCTCCAACCTCAACGTCTTGTTCAGTGAAGCTGAAAAAGGCC  
CCAGTATTCTCAGAAAGAGAAACAAAGAGTAAGTTGCTACATGCTCTTCTCTGTGGCCAAAGAGTAGGATTGAG  
CAAAAATCCATCAGTGATTTTTTCATCGTGTGGGATCTGGATCTGCTTGAGCACCAGACAAGCTTGGTATCTTC  
TGAGGACGGTGGCCGAGAGCAGGAGAACATGGATGACACAAACAGCGAGCAGAGTTAGAGTCTTCAGAGACTT  
CGACTTCTTAGATGTGGAGCTGGAGAGTGGAGAGGTTGAGATATGGACAATTTCAACTGGGGAGTGCCGACAGC  
TTCCTCGGACAGCCTGGATAAGTGTGATGTCAGATTCTGGAGAGCGCCAACTGTCAAGGAACACTCTTAGCTCT  
GAATAAAATGCACCATTGAGGACTCCGATGAATATCCGAGGAGGAGGACTCACAGCCAGGCAGATCTCTGGAGCA  
CTCAGACCTTAATCATGACTCTCTCCCTCTGAAGAGACGAATCCCATGGAGCTGCTCACCACAGCCTGTGACTC  
GACCCCTGCAGAACCTCATCTCTTAACACACAGAATTGCCAGCTTTGATGCTTCTTGCCTGATATGAATAATCT  
GCAGATTCTTGAGGGTTCAAAGCATCTCTGCCGCTTTGAGCCGACAGCCTGTGACAGTGCACAGTGCATGAGGATGATCTTCT  
TAGTTCCATCAATGAATCCCAGCAGCTTTTGAATGCAGCGACAGCTTTAGCCTGGACATGACTGAGGGGGAAGA  
AAAAGGCAATCGGGCACTGGACAGTTTACCTTGGCGAGCTTTGGAGAAGGTGACAGGGGAGTCTCTCCCCCTCC  
CTGCCCTTCTCTCAGCCATCTCTTCCGCTTTTACGCCCGACAGCCTGTGACAGTGCAGGAGGCCCTGGCGCAG  
CCACATCAACAGCTTATGTGTGACTCAGATGGCTCCTGTCTGTATACATTTTCATGTGTTCTCTCTCTGTT  
TAAGAATATTCAAAAAAGGTTCTGCTTCTTAACCTGTGATGCAGCCAGTTACCTTGGAGATAAACCTCCGGGGAAT  
CGGATCCAAATTTGTACAGCTCTTCCCAGATGCTCACCCTCTGTAATGTCTTACACTTTTGTGGAGTCCGA  
GACTCTCCTTTCATGTGGAATCTCTGGACAAGCTCAAGTTTCAGTGTGTTAGAACTGCAAGAAATTTGGGATACCTA  
CAACAACAGGAAAGAGGCCACACTCTCTTGGCTTGCAAAATGTAAGGCAACATTTGACAGGGGATCAAGAGATGG  
AGTAATTACCTGTCAACAGCGGGAGCTCCGAAGAAAAGCAATTGGAACCTGTGCAGAGATTATATAAGCTACACT  
CCAGCTGCTATTGCTTTTTTCAGTCTCTAGTGAAGCTCATCGGCCAGGTGCACGAAGTTAGCTCCATGCCAGAGCT  
GCTGAATATGTCCAGGGAACGTGACTTAAAGAAAACCTGAAGGAAGCCAGTGCAGTCAATGTGACGTGACCC  
TCTCTATTACAGCGGCGGTGGTCCGAGCCACCTTACGCTCCACTGAAGCAGCCATCCAGTCCATGCTGGAGTG  
CCTGAAGACAACGAACCTCGGCAAGCTTTGCGGCAGATCAGGGAGTGCAAGTCTGTGGCCCAATGACATCTT  
TGGAGCAGTCTCTGATGATGGCTCCAGACACTACTGAATATTTATTCCTGCACCAAACTCTGGGACAGACGGG  
TACTTATGCCCTGGTGGGTCTAACCCAGAGCCTGACCGAGATCTGCACCAAGCTGATGGAGCTGAAACATGGAGAT  
CCGGGACATGATCCGAGGCGGAGAGTTACCGAGTCTCTACTACTTTTCTTCCAGCTCCAGTGTTTCTTGGCAC  
TAGTCTCTGACAGGAGCCTCTCTGCCACTGGGTTCCAACTGCAGTGTGCCATGCTGGGGCAACGCTCATTTCA  
GTGCTTCTCGGCCTTCAAAGGCTTGGACAGACTGTTCTCCCTCTTGTTACTGTAGGGCTTTTCTAAAGAGG  
ATGGCAGAACTTCCAACGTGTAGCAATACTATAAAGAACCAAGGTAGCTTTAGAAGCTCTCTGGACAGACTCCACTCA  
TCATGCTGTGGGCACAAATGTGTTACATTTGACCGAGCATATGCAACTCGCTACTGAGGAAGTGAAGTGTG  
CATACCAAAGCCGACTACACTGAACAGTACCTTCTTCTAGAAACAATTTAGATGGGCAAAAGGTGCAATGTTT  
TCTTCACTCAAAAAATTTTATTTCTCAACATGATATTTCTTCCCTGTCTTGTTCATCTTTCTTTCTTTCTTT  
TTTTTTCTTTCTTTCTTTCTTTCTGTTGGGCTGAGAAAGGGGCGAGCAAAATGAAGCTGGCCACTGAAACTGTAAAG  
ATGGTCAAAAGCTGACAGCCTGTGTATGTGAAAGGGAATTTGTAATGGAAGTGCATGTAATGTACACTGTAAT  
TGAATACAATTACTGTATCTAAAAGGAGCTGCTATGAAGTACCTTTCTATGTTCTAGGCTACTGTTTCTGAAA  
GCCCTGGATCTCTTGCACCAAAAAATGGTCCAGATAGACTCTTTTAAAGGATCTTGGCTGCTTTTACTAGAAGG  
TGTGTTTTATGAGCATATTTATCTGCTGAAGGATGAGTGTTAATTTTAAATTAACCTTTGCGGTTTTGTAGAGAAA  
ACTATTCAAGATAAAATCCAAAGCTTTTACCTGTCAAGCATGATATTTAATATCTGTTTTGGATAGTCAGA  
AGTAGAATCATAAAGGTAATAATGAGTTGTACTTTGTTCTTCGATGTCATATTTATGTGTAATATATATGT  
AAAGGGCCATTCTTAATGTTCTCTCTTAACTTAATGCTGTCAAGTGTAGATGTGTGCATGTGAACTTGTGTGCA  
CTGCAGAAACATTTCAAGTTTATCTATGTAACCTTACTCTGTAAATACATTTAAAGTTTTGTGATGTAA  
GCTTAATGTATATTCTGTTCAAGACTTCTTTAGACTAAAAAAGACAAA

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**FIGURE 361**

MASQQDSGFFEIS IKYLLKWSNTPVNGYIKPPVPPASGTHREKGPTMLPINVDPDSKPGEYVLKSLFVNFT  
TQAEKRIRI IMAEPLKEPLTKSLQRGEDPQFDQVISSMSSLSEYCLPSSLRLTFDWDYKQNGIEDESHEYRPTS  
NKSXSDEQQRDYLMERRDLAIDFIFSLVLIEVLKQIPLHPVIDSLIHDVINLAFKHKFYKEGYLGENTGMHIVA  
DLYAEVIGLVAQAKFPAVKKKFMAELKELRHKEQNPYVQSIIISLIMGKFFRIKMYPVEDFEASLQFMQECAHY  
FLEVKD KDIKHALAGLFEV ILVPVAAAVKNEVNVPCLRNFEVSLYDTTLELSSRKKHS LALYPLVTCLLCVSQKQ  
LFLNRWHIFLNNCLSNLKNKDPKMARVALESYLRLLWVYMIRIKCESNTATQSRLLITITLTFPKSGRGVVPDRM  
PLNIFVKIIQFIAQERLDFAMKEIIFDFLCVGKPAKAFSLNPERMNI GLRAFLVIADSLQKGDGEPMPMVTGAVL  
PSGNTLRVKKTYLSKTLTEEEAKMIGMSLYYSQVRKAVDNILRHLDKEVGRCMMLTNVQMLNKEPEDMITGERKP  
KIDLFRTCAVIPRLLPDGM SKLELIDLARLSIHMDDEL RHIAQNSLQGLLVDFSDWREDVLF GFTNFFLLREV N  
DMHHTLLDSSLKLLQLLTQWKLVITQQKVYEQANKIRNSEL IANGSSHRIQSERGPHCSVLHAVEGFAVLVLLC  
SFQVATRKL SVLILKEIRALFIALGQPEDDDRPMIDVMDQLSSSII LESFIHVAVSDSATPLTHNVLDQLWLVENW  
AVLVNSHYDVKSPSHVWIFAQSVKDPWVLCLFSFLRQENLPKHCPALTALSYAWPYAFTRLQSVMPLVDPNSPINAK  
KTSTAGSGDNYVTLWRNYLILCFGVAKPSIMSPGHLRASTPEIMATT PDGTVSYDNKAIGTFSVGVL LKQLVPLM  
RLESIEITESLVLGFRGTNSLVFRELVEELHPLMKEALERRPENKKRRERRDLLRLQLLRIFELLADAGVISDST  
NGALERDTLALGALFLEYVDLTRMLLEAENDKEVEILKDIRAHFSAMVANLQCVPVHHRRLFPPQSLRHHLFI  
LFSQWAGPFSIMFTPLDRYSRDNHQITRYQYCALKAMSAVLCCGPVFDNVGLSPDG YLYKWLDNIIACQDLRVHQ  
LGCEVVVLLLELNPDIINLFWAIDRCYTGYSYQLASGCFKAIATVCGSRNYPFDIVTLLNLVLFKASDTNREIYE  
ISMQLMQILEAKLFVYSKKVAEQRPGSILYGTGHP LPPLYSVSLALLSCELARMYP ELTPLFSGKPAIPHNT PQ  
RAPDHAYLPAAALAAQHRAGGQQAAPP GSSPSPPEDEVKDREGDVTASHGLRGNGWGSPEATSLVLNNLMYMTAKY  
GDEVPGPEMENAWNALANNEKWSNNLRITLQFLISLCGVSSDVTLLPYIKKVAIYLCRNNTIQTMEELLFELQQT  
EPVNP IVQHCDNPPFYRTASSKASAAAGTTSSSNTVVAGQENFPDAENKILKESDERFSNVIRAHRTLESRY  
SNSGGSYDEDKNDPISPYTGWLLTITETKQPQPLPMPCTGGCWAPLV DYLPETITPRGPHRCNIAIVFMTEMV  
VDHSVREDWALHPLLLHAFVLGLDHYRPEVFEH SKLLHLHLLIALSCNSNFHSIASVLLQTREMEAKTLTVQP  
AYQPEYLYTGGDFLREDQSSPVPDSGLSSSTSSSISLGSSSGNLPQMTQEVEDVDTAETDEKANKLIEFLT  
RAFGLWCHEDITPKNQNSKSAEQLTNFLRHVSVF KDSKSGFHLEHQLSEVALQTALASSRHYAGRSFQIFRA  
LKQPLSAHALSDLLSR LVEVIGEHGDEIQGYVMEALLTLEAAVDNLS DCLKNSDLLTVLSRSSSPDLSSSSKLLTA  
SRKSTGQLNMNPGTTSGNTAERSRHQRSFVSPKKFGVIDRSSDPPRSA

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**FIGURE 362**

TTCCCCCCCCCCCCCCCCCGCCGAGCACAGGACACAGCTGGGTTCTGAAGCTTCTGAGTTCTGCAGCCT  
CACCTCTGAGAAAACCTCTTTCCACCAATACCAATGAAGCTCTGCGTGACTGTCCTGTCTCTCCTCATGCTAGTA  
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCTCCCACCGCCTGCTGCTTTTCTTACACC  
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA  
TTCCAAACCAAAAGAAGCAAGCAAGTCTGTGCTGATCCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG  
GAACTGAACTGAGCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCCGATGCTTCCTCATGAGAC  
ACATCTCCTCCATACTCAGGACTCCTCTCCGAGTTCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT  
GTTATTGTATTAGGTGTCATTTCATTATTTATATTAGTTTAGCCAAAGGATAAGTGTCTATGGGGATGGTCCA  
CTGTCACTGTTTCTCTGCTGTTGCAAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAACTTI  
AAAATAAAATGCAGACAGTTA

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**FIGURE 363**

MKLCVTVLSLLMLVAAFCSFALSAPMGSDPPTACCFSTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA  
DFSESWVQEYVYDLELN

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**FIGURE 364**

GGCACGAGGCGCTCGTGCCGCCGGGCTCTTGGTACCTCAGCGCAGCGCCAGGCGTCCGGCCGCGTGGCT**ATGTT**  
CGTGTCCGATTTCGCCAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCTCTCTCTTCGTGGCCTCGGACGT  
GGATGCTCTGTGTGCGTGCAAGATCCTTCAGGCCTGTGTCCAGTGTGACCACGTGCAATATACGCTGGTTCAGT  
TCTGGGTGGCAAGAACTTGAACCTGCATTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAAACTG  
TGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAG  
GCCAGTCAATGTCGTCAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGT  
TCCCGCCTATGAAGACATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTTCAGGAAATGACAGTGATGGGTGAGA  
GCCTCTGAGAAGCGCACACGGTTAGAAGAGGAGATAGTGGAGCAAAACCATGCGGAGGAGGCAGCGGCCGAGAGTG  
GGAGGCCCGGAGAAGAGACATCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGTAT  
GTTTGAGCTGGCTTGGATGCTGTCCAAAGGACCTGAATGACATGCTGTGGTGGCCATCGTTGGACTAACAGACCA  
GTGGGTGCAAGACAAGATCACTCAAAATGAAATACGTGACTGATGTTGGTGTCTTCGACGCCACGTTTCCCGCCA  
CAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCG  
CCTGGTGCTCTACAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCT  
GTGGTCTGTGATGGACAGAAGCGGCTCCAGGAGTTCTTTGCAGACATGGGTCTTCCCTGAAGCAGGTGAAGCA  
GAAGTTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAAAATAAATTGG  
GATGAAGGACATGCGCGTGCAGACTTTTACGATTCTATTTTGGGTTCAAGCACAAAGTTTCTGGCCAGCGACGTGGT  
CTTTGGCACCATTGTCTTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGACAGATCACTTCATCCAGGCTCTGGA  
CAGCCTCTCCAGGAGTAACCTGGACAAGCTGTACCATGGCCTGGAACCTGCCAAGAAGCAGCTGCGAGCCACCCA  
GCAGACCATTGCCAGCTGCCTTTGCACCAACCTCGTCACTCTCCAGGGGCCCTTTCCTGTACTGCTCTCTCATGGA  
GGGCATCCAGATGTCTGTCTCTTAGGCCGGCATCCCTAAGCCTGCTCAGCAAAACCTGCTCAAGTCCCTT  
TGTGTGTTGCACAAAGAACCGGCGCTGCAAACTGCTGCCCTGGTGTATGGCTGCCCCCTGAGCATGGAGCATGG  
CACAGTGACCGTGGTGGGCATCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTGGGAGGGCGTTGA  
GAAGGCAGCGGAAGACCCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAGCTGA  
GGATCGGAGCAAGTTTCTGGACGCATTTATTTCCCTCCTGTCT**TAG**CAATTGTATTCTCCAGAATGACCTTCTT  
ATTTATGTAAGTGGCTTTTATTAGATTGAAGTTATGGACATGATTGAGATGTAGAAGCCATTTTTTATTAA  
TAAATGCTTATTTTAGGCTCCGTCCTCCCAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 365**

MFVSDFRKEFYEVVQSQRVLLFVASDVDALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFHYFILI  
NCGANVDLLDILQPDEDTIFFVCDTHRPVNVVNVYNDTIKLLIKQDDLEVPAYEDIFRDEEEDEEHSGNDSG  
SEPSEKRTIRLEEEIVEQTMRRQRREWEARRRDILFDYEQYEHGTSSAMVMFELAWMLSKDLNDMLWVAIVGLT  
DQWVQDKITQMKYVTDVGVLQRHVSRHNHRNEDEENTLSVDCTRISFEYDLRLVLYQHWSLHDSL CNTSYTAARF  
KLWSVHGQKRLQEFLADMGLPLKQVKQKFQAMDISLKENLREMIEESANKFGMKDMRVQTFSIHFGFKHKFLASD  
VVFATMSLMESPEKDGSGTDHFTIQALDSLRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVISQGPFLYCSL  
MEGTPDVMLFSRFPASLSLLSKHLLKSFVCSTKNRRCKLLPLVMAAPLSMEHGTIVVVGIPPETDSSDRKNFFGRA  
FEKAAESTSSRMLHNFDSLVIELKAEDRSKFLDALISLLS

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FIGURE 366

GC GGGATT TTTC AAGCGTAGGCCCCGGGA ACTCGAGCTGCC **ATG** AGCCTCTGGGTGGACAAGTATCGGCCCTGCT  
CCTTGGGACGGCTGGACTATCAC AAGAGCAGCGGCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCCTC  
ATCTGTTAGTGTACGGACCATCAGGTGCTGGAAAAAGACAAGAATTATGTGTATTCTACGTGAACCTTTATGGTG  
TTGGAGTGGAAAAATTGAGAATTGAACATCAGACCATCACAACTCCATCTAAAAAATAATTTGAAATTAGCACC  
TTGCAAGTAAC TACCACCTTGAAGTTAATCCTAGTGATGCTGGAAAATAGTGACCGAGTAGTCATT CAGGAGATGT  
TGAAAAACAGTGGCACAATCACAACTTGAACAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAG  
TTGACAAACTCACCAAAGATGCTCAGCATGCGCTTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGA  
TCTTGTGCTGCAATTCTACATCTAAAGTGATCCACCTATTCTGTAGTAGGTGCTTGGCGGTTCTGTGTGCTGCTC  
CCAGCATTGAAGATATTTGCCACGTGTTATCTACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCCTCACAACTGG  
CTCATAGACTTGCAGAGAAGCTTTGTAGAAATCTCAGAAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGAAC  
AATATCCTTTTACTGCAGATCAAGAAATCCCTGAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAAATGCTA  
TTGTCAGTCAGCAAAC TCCAAAGGCTCCTTGAAGTTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTC  
CTCCTGAGATAATAATGAAGGGCTTCTCTCAGAACTGTTACATAATTGTGTGGACAAC TGAAAGGGGAGGTGG  
CACAAATGGCAGCTTACTATGAGCATCGTCTACAGCTGGGTAGCAAAGCCATTTATCACTTGGAAAGCGTTTGTGG  
CCAAATTTCATGGCACTTTATAAGAAGTTTCATGGAGGATGGATTGGAAGGCATGATGTTCT **TGAC** TTTCTGTCAGTTA  
TTCTTGCAAGATTTCTCAGTATCAGTATTACATACAGCTTATATAAAGAGCTGTGGGTAAATTAAC TGAACT  
TTAATCATGTCTGTTTGTGCGTTTTTTGGTAACTTCTCTGTGAAC TATTAATCATCCTCTGAGTTAAATAAT  
TGCTCCTATACTATTGAAGTATGTAGTTTTGTACATAACTTAGAGACTTTAGAGTCTAAGAAAAATGATCTTAAT  
TACTTTAAGCATTGGTTATTCAAGTATTCATTGTTGATCCCTCCTATTCTCTCCGCTCAATCTCTCACCTGCTAA  
AGGAGATTTACACATTAGAAAGCAAAGATTATTTTCATTATCCAGATGACCATTTTCTGCCACAGGTAACATGA  
TTGTTTGACACACCATTTATTTTAAATTC TAGTTTTCTCTCAATGAATAATTGTATTTTGTAGGAAATGTAAAGATT  
TCATTCTGAAACATAAATTATTGGTATGGACAAAATTGCAGATACCATTTCTGTTGAGGCTGCAGATTTCACACTT  
TTATTTCACTGGTTCAGATTAGTATTAGGTCGGTACTAAGAAATAAGCATGTTTTCATAATTTAAGTACTTGAG  
ACTCTTGAAGAAAATT CAGAATGAAGTTCTGGAGAAAGGTATGTTACTGTAGTAATTACTCTTTGAAACAGGTTTT  
GTGTTTTGTCATTAGCTCTGCTTTTTTAAATAAATATTTTGGTTTCATGGACCAAAAGGGTTTTACTTGACAAATTT  
GTGTGACAGACTCCGAACAATTCCCTTACTACGAAGTATAATTTATAAAATAAAATATACCCATTTTAAAGGGTAC  
AGTTTGATTTTTGACCAGTGAAC TATGAATCCCAATCAAGGTATAGATGCCGTCAACCCAAAAAGTTCCCTCCAT  
ATCCCTTTGCAGTCAGTTTATCCCTACCTGGCCAGATGATCACTGATCTTGTGTCATTATAGATGAGTTTTGCCA  
GTTCAAGAATTTAAAGGAATCAGATATTGTAAGCATTTCTGTGTAATACTTCTCTCTCTCATTTATGAGATTC  
ATCCATATTGTTGAATGTTTCACTAGTTAATGTTATTGTTCAATATTTTGTATATACTTTTAAAGCCTATTCA  
CTTGCTGATGGATCTTTGTTTGTGTTCCAGGTTTGGTTATTATGAATAAAGTTGCTGTGAATAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 367**

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQITIT  
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVAQSQQLETNSQRDFKVLLTEVDKLTQDAQHALRR  
TMEKYMSTCRLILCCNSTSKVIPP IRSCLAVRVPAPSIEDICHVLSTVCKKEGLNLPSQLAHLRLAEKSCRNLRK  
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVRGRLYELLTHCIPPEIIMKGLLSELL  
HNC DGQLKGEVAQMAAYYEHLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

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**FIGURE 368**

CGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCTCCTTGGGACGGCTGGACTATCACAAAGGAGCAG  
GCGGCCACAGCTGCGGAACCTGGTGCAGTGTGGTGACITTCCTCATCTGTTAGTGTACGGACCATCAGGTGCTGGAA  
AAAAAGACAAGAATTATGTGTATTTTACGTGAACITTTATGGTGTGGAGTGGAAAAATTGAGAATTGAACATCAG  
ACCATCACAACTCCATCTAAAAAATAATTGAAATTAGCACCATTGCAAGTAACACCACCTTGAAGTTAATCCT  
AGTGATGCTGGAAATAGTGACCGAGTAGTCATTGAGGAGATGTTGAAAAAGTGGCACAATCACAACTTGA  
ACAACTCTCAAGGGGATTTAAAGTGGTATTATTGACAGAAGTTGACAACTCACCAGATGCTCAGCATGCC  
TTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGATCTTGTGCTGCAATTCACATCTAAAGTGATC  
CCACCTATTCTAGTAGGTGCTTGGCGGTTTCGTGTGCTGCTCCCAGCATTGAAGATATTTGCCACGTGTTATCT  
ACTGTGTGAAGAAGGAGGTCTGAATCTTCCTTCACAACTGGCTCATAGACTTCGAGAGAAGTCTTTGTAGAAAT  
CTCAGAAAAGCCTGCTTATGTGTGAAGCCTGCAGAGTGCAACAATATCCTTTTACTGCAGATCAAGAAATCCCT  
GAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAAATGCTATTGTGTCAGTCAGCAAACTCCCAAAGGCTCCTT  
GAAGTTCGTGGAAGGCTGTATGAGCTTCTAACTATTGTATTCCTCCTGAGATAATAATGAAGGGCCTTCTCTCA  
GAAGTGTACATAATTGTGATGGACAACCTGAAAGGGGAGGTGGCACAATGGCAGCTTACTATGAGCATCGCTA  
CAGCTGGGTAGCAAAAGCCATTATCACTTGGAAAGCGTTTGTGGCCAAATTCATGGCATTATATAAGAAGTTTCATG  
GAGGATGGATTGGAAGGCATGATGTTCT**TGAC**TTTCGTGAGTTATTCCTTGCAAGATTTCTCAGTATCAGTATTTA  
CATACAGCTTATATTAAGAGCTGTGGGTAAATTAAGTGAACCTAATCATGTCGATTTTGGGTTTTTTGGTAA  
TAACCTCTCTGTGAACATTAATCATCCTCTGAGTTAAATAATTGCTCCTATACATATTGAAGTATGTAGTTTTGT  
ACATAACTTAGAGACTTTAGAGCTTAAGAAAATGATCTTAATTACTTTAAGCATTGGTTATTCAGTATTCATT  
GTTGATCCTCTATTCTCTCCGCTAATCTCTCACCTGCTAAAGGAGATTTACACATTAGAAAGCAAGATTTAT  
TTTCACTTATCCAGATGACCATTTTCTGCCACAGGTAACATGATTGTTTGACGG

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**FIGURE 369**

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT  
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVASQQLTNSQRDFKVVLLEVDKLTQDAQHALRR  
TMEKYMSTCRLILCCNSTSKVIPP IRSCLAVRVPAPSIEDICHVLSTVCKKEGLNLP SQLAHLAEKSCRNLRK  
ALLMCEACRVQQYPFTADQEIPTDWEVYLRETANAIVSQQTPQRLLEVRGRLYELLTHCIPETIMKGLLSELL  
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

**FIGURE 370**

AGTCTCCGGCGAGTTGTTGCCTGGGCTGGACGTGGTTTTGTCTGCTGCGCCCGCTCTTCGCGCTCTCGTTTCATT  
TTCTGCAGCGCGCCACGAGG**ATG**GGCCCAAGCAGATCTACTACTCGGACAAGTACTTCGACGAACACTACGAGT  
ACCGGCATGTTATGTTACCCAGAGAACTTTCCAACAAGTACCTAAAACCTCATCTGATGCTGAAGAGGAGTGGGA  
GGAGACTTGGTGTCCAACAGAGTCTAGGCTGGGTTCAATTACATGATTATGAGCCAGAACCACATATTCTTCTCT  
TTAGACGACCTCTTCCAAAAGATCAACAAAA**TGA**AGTTTATCTGGGGATCGTCAAACTTTTTCAAATTTAATG  
TATATGTGTATATAAGGTAGTATTCACTGAATACTTGAGAAATGTACAAATCTTTCATCCATACCTGTGCATGAG  
CTGTATTCTTCACAGCAACAGAGCTCAGTTAAATGCAACTGCAAGTAGGTTACTGTAAGATGTTTAAGATAAAAG  
TTCTTCCAGTCAGTTTTTCTCTTAAGTGCCTGTTTGAGTTTACTGAAACAGTTTACTTTTGTTCAATAAAGTTG  
TATGTTGCATTTAAAAAAAAAAAAAAAAA

**FIGURE 371**

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEWRRLGVOQSLGWVHYMIHEPEPHILLFRRLPK  
DQOK

## FIGURE 372

GAATTCCTCCAAACGTGCACAGGGGAGTGAGGGCGCTCGCAGGGGGCAGCAGAGGGAGGGCCAGGGCGCCAG  
GGAGGCCCGCGCGGCTAATCCGAAGGGCTGCGAGGTGAGGCTGTAAACCGGGTCAATGTGTGGAATATTGGGGG  
GCTCGGCTGCAGACTTTGGCCAAATGAGCAGGGACTATTAAGGAGGCTCTGTCTGGTGGTGAGCGACGACCAAGTCCCT  
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGCCGACATGACTGCCTCGGGGAGTCTTGACTACGG  
GCAGCCCCACAAGATCAACCCCTCCCCACCAAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCGAAGCG  
GGAGTATGACCACTGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAGAAATGCAGCAAGCTGGTGGG  
CGGAGCGGAGTCTCAACCCATGAACTACAACAGCTATATGGACGAGAAGTTAGGCCCCCTCTCCCAACATGAC  
CACCAACGAGAGGAGAGTATCTGCTCCCGCAGACCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA  
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCCTTTTCCAGAAACATGGATGGCAAGGAACTGTG  
TAAATGAACAGGAGGACTTCTCCGCGCCACCACCTCTACAACACGGAAGTGTCTTGTACACCTCAGTTA  
CCTCAGGGAAGTTCTACTGCTGGCCTATAATACAACCTCCCAACCCAGCAATCTTCAGATTGAGTGTCAAAGA  
AGACCCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATCTTGGCCTCAACAAAAGTCTCTCC  
CCTTGGAGGGGCAACAAAGCATCAGTAAGAAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGGCC  
GACCAGCAGTCCCTAGCCAACCTTGGAAAGCGGGCAGATCCAGCTGTGGCAATTCTCTGGAGCTGTCTCCGA  
CAGCGCCCAACCGCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAAATGACGGACCCCGATGAGGTGGC  
CAGCGCTGGGGCGAGCGGAAAGCAAGCCCAACATGAATACGACAAGCTGAGCCGGGGCCCTCCGTTATTACTA  
TGATAAAAACATTATGACCAAAAGTGACCGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCACGGC  
TCTGCAGCCACATCCGACCGAGTCTGCTCATGTACAAGTACCTTCTGACATCTCCTACATGCCTTCTTACCATGC  
CCACCGCAGAAGGTGAACCTTGTCCCTCCCATCCATCTCCATGCCTGTACATCTCTCCAGCTTCTTTGGAGC  
CGCATCAATACTGGACCTCCCCACGGGGGAATCTACCCCAACCCCAACGTCCTCCCGCCATCTCAACCCCA  
CGTGCTTCACTCTAGGCAGCTACTACTAGAGCTTCTTCTAGCTGAAGCCCACTCTGCACACTTACTGATGC  
TTTGGACTCAACAGGACATAATGTGGCCTTGAAGGGAAGACAAAACCTGGATGTCTTCTTGTGGATAGAACCTT  
TGATTTGTCTTTAAAAACATTTTTTTAATGTGGTAACTTTTGCTTCTCTACCTGAACAAAGAGATGAATA  
ATTCCATGGGCGAGTATGCCAGTTTGAATTCCTAGTCTCCTAGCATCTTGTGATGTGCATATTAAGATTACTGGA  
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAGCAGTTTCTTGTC  
ATACACGGGGTTCAGTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTAGTGACAAAATA  
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAAATTCAGCGGATGGCAACTGGAACATTGATGTAAAGC  
CAGTGAAGTTTTACCCAACTGGAATTTGATGGAAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA  
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCACTCTCTCTAGAAATAGTCAAGATATGAACATAAGAAATTTT  
AATGCAAAATACATACATCTCTGAAAGACGGGGAATTAATTAATAATTTTTTTTTTAAATGATGACAGTGGTC  
CCAGAACTTGGAAAAGTTGTAGGGGATTCTAAACTCAAGCAGATTCCGAAGTGCTGTGGCCTTGTACACCATCA  
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATATGACAGATTATTTCTATATCTCAGATT  
AAAAAATAAATAATTAATAAATTAAGAATAAATAAAGCAGTTGACCTCGGTACACAAAAGCAGTTTACTATCGAAT  
CAATCGCTGTATTTTTTTTAAATGTAATTTGTACATCTTTTTTCAATCTGTACATTGGGGCTGTCTGTATGTT  
TTATGCTCCTTTTTTAAAGCATAATATGCTATAGCTGAAAGGAAGAACAGGGCTGTTAAGTCTACTGACTTAT  
GAGAAAGCAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAAGATAATCCATTTAGATCTTTA  
ATGCTTTGGAAATCGGTGTAAACAGTATGCAATAATCAGAGTCTGGGAAAAACAACGAACTTTCCCTTGGGA  
GAGGAGGATTTTCTGCTCTATATAAGCAACATATTTTAGACATTAAAAATATATAAATTTTGACGTAATTG  
TTGACTTTTTTAACATATATTAAGTGTTAAGCTGACAACCTGTCAAGAAGACCATTGTGTAAATAATTTGACTAA  
ATAAATGGTTCTCTCTCAAAAAAATAAATAA



**FIGURE 373**

MDGTIKEALS VVSDDQSLFDSAYGAAAHLPKADMTASGSPDYGGPHKINPLPPQQEWINQPVVRVNVKREYDHMNG  
SRESPVDCSVSKCSKLVGGGESNPMNYSYMDKNGPPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS  
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHDQSSRLSVKEDPSYDSV  
RRGAWGNMNSGLNKSPPLGGAQTI SKNTEQRQPDPYQILGPTSSRLANPGSGQIQLWQFLELLSDSANASCI  
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFD FHGIAQALQPHPT  
SSMYKYPSDISYMP SYHAHQKVNFVPPHPSMPVTSSSFFGAASQYWTSP TGGIYPNPVPRHPNTHVPSHLGS  
YY

AGAGCGGGTGTGAGAGCGTGTGGTAGGTGTTGTAGCCGCTATGGTGAAGTTCGCTTTGTACGGGCCCGCGCT  
AGAGAGTGTGGCCCTTCCCTCGCCCTTTGTACCCCGAGGAGCCTTTGGGGGCGCTCAAGCCGCTGGCCGTAGGCA  
CGGAACGTGTTTGGCCGCTTTGATTCCTGTCCAGAGTGTTCGTGACCAAGACAGATCGAAATTCATATTA  
GTCAATTATCTAGAGGATCAAGTCTATGCTCAGAGGCAAGCGAAGTCAATGTTTGTACCCCTCTTCAATGC  
TATCATGGCTTAAATGGTAGTGGGAAATCCAACTATTTGGACCTCCATCTGCTTTTACTGGGCATCCCACT  
GTCTCAGTTCGGGGCTCTTAATTTACAGATTATGTTTACAAAAATGGGCGAGTGGTATTACCAAGCGTCTGT  
GTCAATCACTTTTGATAATTTCTGACAAAAAGCAAGTCCATTAGGATTGGAGTTTCATGATAATACACAGTA  
AAGGCAGGTGGTTATGGTGGTAGGATAAAATATTTAATCAATGGAGTCAATGCCCAACCCAGAGTACAGGA  
TCTCTTCTGTTCTATTGGCTTAATGTTTAAACAACTCCTTTCATCATCGAGGGCCGAATTACAAAAAT  
GAATATGAACCCACGAGATTTTATCATGTATAGAAGAACGCTGGAACCCAGGATGTATGAATCAAAAAAT  
AGCTGCACAAAAATATGAAAAAAGGAGGCTAAGCTGAAGAAATTAAGCACTACTTGAAGAAGAGATTAC  
TCCAACCATTCAAAAATTAAGAGGAAAGCTGCCTACTTGGAGTACCAAAAAGTAATGAGAGAAATAGAACA  
TTGAGTGGCTATATATGTTTACGTTTGTGCTGGAAGTACCAAAAGCTCGCTAGGAAATGAGGAATTA  
AAGTTCGAAGTAAAGTTATAAGGCTTCAGGAAGATTTGCTGAGAATGATAAAAAATTAAGAGCATTTAATC  
TGAAATAGAAGAAATTTGAAAAAAGAAAGATAAGGAACTGGAGTTATACTTCGATCTTAGAAGATGCTCTGC  
AGAGGCTCAGCGAGTCAATTAATCTCAAAGCGCATTTGATCTCAAGAAAGAAATCTGGCATGTGGAGAAAG  
CAACGCGAAAGAGTTGAAAAAATATGTTTGAGGACTCAAAACCTTAGCAGCAAGAAAAAGAGTTAAAAA  
GATAACAGATGGCATGCTGCCCTTCAAGAACGAGTAAATGAAGTGTGAAGCTCTGGCAGCTGCACAGCAAC  
CTTCAATGCTGTTCCGCTGGCCCTGTCAGTATGAAGTGGAGCAGAGCAACTCTTGCTGTCAAAATGATGGC  
CTGTAAAAATGATATAAGTAAGCTCAGACAGAAAGCAACAGGCTCAGTAGAGTTGAAGCATCTCAACAGGA  
ATTAAGAAATAAACAGCTGAAGTTAAGAGATGTAATAGTGGCTCAGGAAAGGATCAAGAAGCTTAGAAGCTGT  
AAAAAGACTTAAAGAAAACTTGAAGCTGAAGTGAAGAACTAAATTAGAAGAAATAAAGAGAAAGCTTTT  
GAAAAAGCGCAGGCACTGCTCTGTGATATGTTGATTTGAAAGAAACATATGAAGCTCTATTAGCCAGATTCC  
CAATCTCGATTGTCATCAAGGATCAGAGAAAGACTTGAATAGAAATTTGTGGAAGAGGACTTGCTGCTTCT  
TTATTAGTGTGAAGACACTTCTGCAACCACAGCTTTGAATATAGTGGCTGGAAGACATCTACAATTTGTAGT  
AGACACAGAAGTTACTGGTAAAAAGCTACTAGAAAAGGGGGGAACTGAAACGTCGATACATATAATTTCCACTCAA  
TAAATTTTCAGCCAGATGTTATGCACAGAAACTCTGAGATGAGTGGCTGTTTGTGTGCCCTGACACAGCTGA  
TTGGCTCTTCTCTGTTGTAATATAAACAGAACTCAGAAAGCAATCGAATTTCTTTTGTGGAACAGATTTGT  
TTGTGCAATATGGAATAATGCCAAAAAAGTGGCCTTTGATAAGAGGATAATGACTAGAAGTGAACCTCGGAGG  
TGATGTGTTTGATCTTATCGGCATGGGACATTGAGTGAGGTGCTCGATGCCAGGAGCTTCGATTTTAAACAAAGTTT  
AGACTCAAGAAGTGTTCAGGATGAATGAGAATCAAAGAAAGTACGCTCGGGCTTGAAGAGGAATAGCAGG  
TCTTAAAAACACTGCTGAAAAGTATGCCCACTTAAACAGCAGTGGGAGATGAAAACAGAAGGCAGATTATT  
ACAACCAAGCTCCAGCAAGCTCATATACACAGCAAGCAAGAAAGATTAGTGCCTTAAAAAACCAATTGAGGA  
AAGTAGGAGACTTTGAAAACCACTAAGAAATTCAAAGAAAGAGCAGAGAATAATAGATTGTGAAAATAA  
AATGAAAAATGCAGAAGCTGAAAGAGAGCGAGAAGCTGAAAGATGCTCAAGAAAAATGGATTGTGCCAAAACAA  
GGCAGATGCATCTAGCAAGAAGATGAAAGAAAAAACACAGGAAGTTGAAGCTATCATCTCGGAAGCTGGAAGAGCT  
CAGAGAGAGCATACATTTCAAACACAGCTTGAAGCTGTAATGAGCTATCAATCTCATAGAACTCAGAT  
TGAAGTATGGCAGCTGAGGTGGCTAAAAATAAGAGTCACTAAATAAGCTCAAGAGAGGTGACCAAGCAAAA  
AGAGGTGATAACAGCCCAAGCACTGTAATTAAGCTAAATTCAGAGAAGTGCACAAACCAAGGAAACAACTA  
GATCTCAGCTTAAATTAAGAAATAGACCACCATACAGCAAACTAAACGGGAGGCTGAAGATGGTGTGCG  
AAAGGTATCCAAAATTTGAAAGATTATGACTGGATTAATGCACAGAGCACTCTTTGCCAACCCCAATATGCT  
CTATGATTAAAAACTAACACCTTAAAGAGCTGTGCAGAGCTCAGAAAGTGCAGAAAGTGAAGGAGATGAG  
ATGAAGAAATGTCAATTAGAGAGCTATGAATGTTATGACAGAAGCTGAAGAGCGATGCAATGACTTGATGAAGAA  
GAGAGAAATGTAGAAATAAGCAAAATCAAAATTTCTACATATAGAAGACTTGACCAAGAAAGAAACCAAGC  
CTAAATATGCTATGGTGCAAAAGGTGAACAGGACTTTGGTCTATTTTTCTACTCTTTGGCTGGTGGCTAATGC  
TATGCTTGCAACCACAGAGGGTCAAACCTGTTTGGATGGCTGGAGTTCAAGGTTGCCTTAGGAAATACCTGGAA  
AGAAACACTCACTGAACCTTAGTGGTGGTGCAGAGCTTTTAGTGCCCTGTGCTAATCATGTTCCCTGCTCTCT  
CAAACCTGCTCAAAATTTATCTGTTGATGGAGTAGTACGCGCTGGATCTTCTTACATACCCAAACATGGAC

**FIGURE 374B**

GATGCTGCGTACTCATTTACACATTCTCAGTTCATTGTGGTGTCACATAAAAGAAGGTATGTTCAACAATGCAAA  
CGTTCCTTTTCAAACCAAGTTTGTGGATGGTGTTCCTACAGTAGCCAGATTTACTCAATGTCAAAATGGAAAGAT  
TTCAAAGGAAGCAAAATCCAAGGCAAAACCACCCAAAGGAGCACATGTGGAAGTTTAACTACAAAAGTTATTTCT  
TCATCTTGACCTGTTTTTTTAAATGTAACTTTTAAGGACTTGAGATAACTAATTTGTTTATATACAAAAATTAA  
TGTTACTGTGTTACTTAACCCATGTTTTCTCTTTATATAATCAGTTATCGCTTACAAATGAGCATATATTCCTCA  
TCTCTTAAGTCTAATTATGGTCCAATTATTGTGGTTGTGATTTTATGCATATCCATCAAAATGTTTTTTTCA  
TTATGCGGGTCTTTTATATATTAGGGATCCTGAGATACCGATTCTATATGTAAAAGCTAATATACAAAAAGCA  
GATTAAATTACATGATAAATGTAGCTGAAAAAAAAAAAAA

## FIGURE 375

MHIKSIILEGFKSYAQRTEVNGFDPFLFNAITGLNGSGKSNILDSICFLLGISNLSQVRASNLQDLVYKNGQAGIT  
KASVSIIFDNSDKQSPLGFEVHDEITVTRQVVIIGRNKYLINGVNANNTRVQDLFCVGLNVNPNHFLIMQGRI  
TKVLNMKPPPEILSMIEEAAGTRMYEYKIAAQKTIEKKEAKLKEIKTILEEEITPTIQKLKEERSYLEYQKVMR  
EIEHLSRLYIAYQFLLAEDTKVRSAAELKEMQDKVIKLQEELSENDKKIKALNHEIEELEKRKDKETGVILRSLE  
DALAEAQRVNTKSQSAFDLKKKNLACEESKRKELEKNMVEDSKTLAAKEVEVKITDGLHALQEASNKDAEALAA  
AQQHFNAVSAGLS SNEDGAEATLAGQMMACKND ISKAQTEAKQAQMKLKHAAQOELKNKQAEVKKMDSGYRKDQEA  
LEAVKRLKEKLEAEMKKLNYEENKEESLLEKRRQLSRDIGRLKETYEALLARFPNLRFAKYKDPEKNWNRNVCVGL  
VASLISVKDTSATTALELVAGERLYNVVVDTEVTGKKLLERGERLKRRYTIIPLNKISARCIAPETLRVAQNVLVGP  
DNVHVALSLVEYKPELQKAMEFVFGTTFVCDNMDNAKKVAFDKRIMTRVTITLGGDVFDPHGCTLSGGARSQAASIL  
TKFQELKDVODELRIKENELRALEEEELAGLKNTAEKYRQLKQWEMKTEEADLLQTKLQSSYHKQOEELDALKK  
TIEESEETLKNTEIKIRKAAEEKYEVLNKMKNAAERERELKDAQKKLDCAKTKADASSKKMKKEQQEVEAITLE  
LEELKREHTSYKQOQLEAVNEAIKSYESQIEVMAAEVAKNKESVNKAQEEVTKQKEVITAQD TVIKLNMQKWQNT  
SKTMILSLKIKELDHHISKHKREAEAGAAKVKMLKD YDWINAERHLFGQPN SAYDFKTNPKAEAGORLQKLQEM  
KEKLG RNVNM RAMNVLTEAEERCNDLMKKKRIVENDKSKILTTIEDLDQKKNOALNIAWQKVNKDFGSI FSTLLP  
GANAMLAPPEGQITVLDGLEFKVALGNTWKENLTLSGGQRSVALSLILSMLLPKAP IYILDEVDAALDSLHTQ  
NIGQMLRTHFTSHSQFIVVSLKEGMFNANVLFKTKFVDGVSTVARFTQCQNGKISKEAKSKAKPPKGAHVEV

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FIGURE 376

ACTAAGACCGCAAGGCATTCACTTTCCCTCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCGAGAGAGGAG  
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGCGCTGGGAGAGAAGAGACGCCCGCTGGAG  
ACCGAGCGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT  
ACAGATTATTTTATTTTGTATAGAGAACAACGTAGCGACTCCGAAGATCAGCCCCAATGACAACTGTCAAGTGTGAC  
TTTACAAGAATATGAATTCGAAAAGCAGTTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACCTGGAAGAA  
ATCTTTCTGCTTTTCTGCTCTGTATGCTGCCTTTATATTCTGGTGGTGGCACCCTAATGAATAAACAGGAAAAGT  
TGAAGTGAAGAAGCAATTAGTGCTCTGGTCTCTGACCCCTTGAGTCTCTCAGTATATTCGGTGTCTTCCGAACCTGG  
TGCTTATATGGTGTACATTTTGTATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC  
TGTGAGCAAAATCTCGGGCTTATGCAATTTGTGCTAAGCAAAAGCACCAGCACTAGGAGATACAATATTCATTATTTCT  
GAGGAACGAGAAGCTGATCTTCTTGCACCTGGTATCACCACATCACTGTGCTCTCTGTACTCTTGGTACTCCTACAA  
AGACATGGTTGCCGGGGAGGTTGGTTCATGACTATGAACATATGGCGTGACCGCGTGATGTACTCTTACTATGC  
CTTGCGGGCGGCAAGTTTCCGAGTCTCCCGAAGTTTGCCATGTTTATCACTCTTGTCCAGATCACTCAGATGCT  
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGTGGATGCAGCATGACCAGTGTCACTCTCACTTTTCAGAACAT  
CTTCTGTCTCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTTCTTTGAGGCTACATCGGCAA  
AATGAGGAAAAACAAGCAAGTGAATTAGTGTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAAT  
AATAGACAAAAGAAAATGGCAAGGAATACACAGTGGTGAGCTAAACCAACCAAGCACTAGCAAAACACAAA  
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTAAACCCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT  
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCTCTTTATCTATCAACTTAGGACAAGGG  
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAAACAAGGCTATTAAACACATAGGAAAATATGT  
ATTTACTAAGTGTACATTTCTCTAAGATGAAAGATTTTTTACTCTAGAAACTGTGCGAGCACACACACACAATC  
CTTTCTAATTTTATGGACACTAAACTGGAGCCAATAGAAAAGACAAAAATGAAAGAGACACAGGGGTGTATCTA  
GAACGATAATGCTTTTTCAGAACTAAAGCCTTTTTTAAGAAATGCCAGTCTGTAGACCCCATGAGAAAAGATG  
TCTTAATCATCCTTTATGAAAACAGATGAAACAACATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG  
CTAGTGAGTTTGCCAAAACCAAAGGGGGTGAATACTTCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC  
CCAGGTCCCATGGGGCAGCTCCATCCAGAGCATTTCTGATAGTTGAAGTGAATTTCTACTCTTAAGTGAGAT  
ATGAAGTATTATCCTTTTGTTCAGTTGCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA  
CACTCAACCAACAATGTGAAAACGGGTCTGTAGTATTTGTAAAAAGGCCCGGCCAGGACCACTGTGAGCTGG  
AAAAGGGAGAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGCGGTGTGTATGCCCTCC  
CTGTTTGACTTCACACACTCATAACTTTCCAAATGAACCCCAAGTATAGCGCATATTTTCGATATTTTTGT  
GAATTCAAAAGGAAATCACAGGCTGTTTCGAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT  
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAACCTTCAAGGCAAG  
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCATACACTTATCCCTCAATTTTAAAGTGATGAAATCACTTG  
TCTGCTCTTTGGCCAAATCAGAAGATATTCATCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAAGGGACTTTA  
GCTCTGGAACCTCAAAATCAATTTATTAAGAGCCATATTCTTTAAAAAAAAGCTGGATAATATTATCTGTAATA  
TTTCAGTCTTTTACAGCCAAATCAATGTGTGTCATGTGTTCTAGTATTTCAAAGAAGCAATATGTAAAGTTGCTC  
AATGTGACATAATAGTATTATAATTTGGTTAAGTAGCTTAATGATTAGGCCAACTAGATGAAAAGATTAGGGGCTT  
CCACAGTCATAGATCACACGCATATGCCACGCATACACACAGACACAGATGTGGGGTACACTGAATTTCT  
AAAGCCCAATATAGAAAACACATTTTCTGGCTAGCAGAAAAAAACAAAAACCTGTGTTGTTCTCTCTCTTG  
CTTTGAGAGTGTACAGTAAAAGGGATTTTTTCGAATTATTTTATTTATTTAGCTTTAATTTGCTGCTCGTTC  
ATGAAACAGAGCTGCTGCTTTTCTGTGACAGATGGCAAGGGCTTTTTTCAGCATCTCGTTTATGTGTGGAATTT  
AAAAAGATAAAGTTTTATTCCTATCTGAAAAAAAACAAAAA

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**FIGURE 377**

MNMSVLTQLQEYEFKQFNENEAIQWMQENWKKSFLSALYAIFGGRHLMNKRAKFE LRKPLVLWSLT LAVFSI  
FGALRTGAYMVYI LMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFI ILRKQLIFLHWYHHITVLL  
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC  
HSHFQNIWFSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

## FIGURE 378

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCTCCGGACCCGATCCCAGCATCCCTGCCTGCAGGACTG  
TTCGTGTTCAAGTCGCGTCTGCAAGTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTCGCTG  
AGTGGGCGCGGCACCGCGGAGATGCTGGGAAGAAGCGCGCAAGAACGCTCAACCGAGCCCCGCGCGGCTC  
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTGGAGACAACTGAACTTCCGGCAGAACTTC  
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTGACTGCATCAAAAACCTGCATGAGGGGACTCTTCAAAA  
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC  
ATTCATGGGTGCCCTTGGAAACGGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCAGATTATCA  
TTCTTTGGGATGAGAGAACATTATAAAACCACCTTTGTTTATTTTAAAGCAAGATGGAAGACCTTGAAAATAAA  
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTGCCGAAGATTACCGCTGGCCT  
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCAATTGTTGTTGCTG  
TTTTTGGTGTTTTGCTTTTCAGTGCCAACCTCAGCACATTGTATATGATTCCGTTTTATACATATTACCTTGTAT  
ATGAAAAAATCATTCTGAGAACACTGAAATGTTATCTCAGTGTTGATTTCTTCGGCTACTACACAACGTAAAA  
TCATTTGTTTCTTTTGACTCAAAATTGTATTGCTTCTGTTCAAGATGATCTTTCATTCAATGTGTTCTGTTGGCG  
TTACTAGAACTATGGAACCTGGAAAATAACTTTGAAAAAATTGGATAAAGTATAGGAGGTTACTTGGGGCCA  
GTAATCAGTAGACTGAACATTCAATATAATAAAGAACATGGGGATTTGTATAACCAGGGATAATAAAAGAA  
AAAGAAGTTAATTTTTAATTGATGTTTTTGAACTTAGTAGAACAAATATTGAGAACTAATCTTGATAAGATATGA  
ATGTTTCTAAAGAGTTCTAAAGGTTGCAAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAAGTGATCTCT  
TAATGTAATTAAGAATATTTTCATAATTGGAATATACTTTTCTAAAAAAGGAACAGTTAGTTCTCATCTAG  
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA  
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGCTCAAGTAAGTTCAATTTTTTTATCTGGGCTATA  
TACAGTCCTCAATAAAATAATGTCTTGATTTTATTTACAGCAGGAATAATTTTATTATTGCTATTATATAATT  
AAAGTATTTTTCTTAGTTTGAATGTGATTAAGTTACATTTTGTAGTTACAAGAGTCTTATACTACTTGAA  
TTTTTAGTTAAAATGTCTTAATGTAGGTTGTAGTCATTTAGATGGAAATACCTCACATCTGTTTCTTCAGT  
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTCAGCCTAGAGGAGCTATTTTACCATCTGGT  
ATTTATGGTCTAATTTGTATTAAACATATGCACACATATAAAAGTTGATACTGTGGCAGTAACTATTAAAAAT  
TTTCACTGTT

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**FIGURE 379**

MPGKKARKNAQPSPARAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT



## FIGURE 380

CGGGCACTACCCGTGTGTAGTTGGCATCTCCGCGCTCCGGACACCCGATCCAGCATCCCTGCCTGCAGGACTG  
TTCGTGTTCAAGTCGCGTCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTGCGTG  
AGTGGGCGGCGCACCGCGGAGATGCTCGTGGGAAGAGCGCGCAAGAACGCTCAACCGAGCCCGCGCGGGCTC  
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAACTGAACTTCCGGCAGAACTTC  
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTGACTGCATCAAAAACCTTGCATGAGGGGACTCCTTCAAAA  
GAGTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC  
ATTCATGGGTGCCCTTGAAACGGAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTCCAGATTATCA  
TTCTTTGGGATGAGAGAACATTATAAAACCACCTTTGTTTATTTTAAAGCAAGATGGAAGACCCCTGAAAAATAA  
GAAGTAATTATTGACACATTTCTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCCT  
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCATTGTTGTTGTTGCTG  
TTTTTGGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTCCGTTTATACATATTACCTTGTATA  
ATGAAAAAATCATTCTGAGAACACTGAAATGTTATACTCAGTGTGTGATTTCTTCGGTCACTACACAACGTAAAA  
TCATTTGTTTCTTTTGACTCAAAATTGTATTGCTTCTGTTCCAGATGATCTTCATTCAATGTGTTCCGTGTTGGCG  
TTACTAGAACTATGGAAACCTGGAAATAACTTTGAAAAAATGGATAAAGATATAGGAGGGTTACTTGGGGCCA  
GTAATCAGTAGACTGAACATTCAATATAATAAAAGAACATGGGGATTTTGATAACCAAGGGATAATAAAAGAA  
AAAGAAGTTAATTTTTAATTGATGTTTTTGAAACTTAGTAGAACAAATATTCAGAAGTAACCTTGATAAGATATGA  
ATGTTTCTAAAGAGTTCTAAAGGTTCGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAAGTGATCTCT  
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACCTTTCTTAAAAAAAAGGAACAGTTAGTTCATCTAG  
AATGAAAGTTCATATATGCAATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA  
GATAAATTGTATTAGAGTAATTATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTATCTGGGCTATA  
TACAGTCCTCAATAAAATAATGTCCTTGATTTTATTTCAGCAGGAATAATTTTATTTATTTTGCCATTTTATAATT  
AAAGTATTTTCTTTAGTTTGAATGTGTATTAAGTTACATTTTGTAGTTACAAGAGTCTTATACTACTTGAA  
TTTTTAGTTAAAATGCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAATTACCTCACATCTGTTTCTTCAGT  
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT  
ATTTATGGTCTAATTTGTATTAAACATATGCACACATATAAAAGTTGATACTGTGCCAGTAACTATTAAGAT  
TTTCACTGTT

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**FIGURE 381**

MPGKKARKNAQPSAPAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

## FIGURE 382

AGCCTGCCCTTGGGGCTGCCACGCCCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCGCTG  
GACTACATCTCCCGCGTGCCTGGCAGTGTGGTGGCCTCTGTGCGCCGCTCTGCACTCGTTGCAGGCGACGATGCA  
GAGGGCTGTAAGTGTGGTGGCCCCGTCTGGGCTTTGCGCTGCAGGCATTCCCCCGGCCCTTGTGTCTCCACTTAG  
TTGCGCACAGGAGGTGCTCCGAGGACACCGCTCTATGACTTCCACCTGGCCACGGCGGAAAAATGGTGGCGTT  
TGCGGGTTGGAGTCTGCCAGTGCACTACCGGGACAGTCACACTGACTCGCACCTGCACACACGCCAGCACTGCTC  
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACAGGTGTAAGCTGATGGAGAGTCTAGT  
GGTTGGAGACATTGCAGAGCTAAGACCAAAACGAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT  
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA  
TTTGGCCCTCATGCAGGACAAGGTGAGGGAGCTTCAGAACGAGGCGAGAGATGTGGCGCTGGAGGTGTTGGATAA  
TGCCCTGCTAGCTCTGCAAGGCCCCACTGCAGCCAGGTACTACAGGCCGGCGTGGCAGATGACCTGAGGAAACT  
GCCCTTCATGACCAGTGTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG  
AGAGGATGGTGTGGAGATCTCGGTGCCGCTAGCGGGGGCAGTTTCACTGGCAACAGCTATTCTGAAAAACCCAGA  
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCCTGCGCTGTATGGGAATGACAT  
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCGAGCTGCTATGGACT  
CCCTGGAGCCAAGGTCATTGTTCCCAAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATGTGTGAGG  
GGCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC  
CTCCCCCTCTCTGAAGAAGAAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCAGGGGCAAAATGCTGCT  
GGTAGAGGTGCGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCAAACTACTATACCCCT  
CAAGTCAAGCTGGCTCAGGGTGGGGCTGTCCCTTCCAGGAGTTTGGCCCTACAAGGGTTAGTCAAGAAGCTGA  
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGAGGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACTA  
TTCCCCCACCTAACTCATGCCATTCCAGCTTCCCTCAGGACCCGCTTCTGAGTGACGGACAGCTCACACAAT  
GTCTTGTTTTCAGTCCATGATCCCACTGACCTACTCTTGCCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT  
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAGGCTCACCTTTGTGGAGAGGATAAAACCTKCCCAACCTA  
CCTCACCATGGTTTTTTCATTGCAAAAGGGTAATAACATGGGCAGTGGGACTTAGGCTACCCCTCCAGTGTTC  
TTTCCGTAATGCAAAATGTCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG  
TGTAACCTTGGGGATGGCTGAGGGAACATAGACTCACTCTCCACATTCCTCAAGTTGGTCTAGTGTGCTGCCAG  
TAGCAAAACATGGCAGACTCACCACTATTCTGAGTTCAGGGCTGCTGTAGGGCAGGGTGGGCTTCTCCCCAGA  
CTTGCCCTTACCCTGGGCTGATCTTGGCCCTGATGATTAATGGACTCCACTGAATCTGAAAAAAATAA  
ACTTCTCTTACTTGCCA

**FIGURE 383**

MQRVSVVARLGFR LQAFFPALCRPLSCAQEVLRRTP LYDFHLAHGGKMVAFAGWSLPVQYRDSHTD SHLHTRQH  
CSLFDVSHMLQTK ILGSDRCKLMESLVVGDIAELRPNQGTLSLFTNEAGGILDDLI VINTSEGHLYVVS NAGCWE  
KDLALMQDKVRELQNQGRDVGLEVL DNALLALQGPTAAQVLQAGVADDLRKLPFMTSAVMEVFGVSGCRVTRCGY  
TGEDGVEISVPVAGAVHLATAILKNPEVKLAGLAARDSLRLEAGLCLYGNDIDEHTTPVEGSLSWTLGKRRAAM  
DFPGAKVIVPQLKGRVQRRRVGLMCEGAPMRAHSPILNMEGTKIGTVTSGCPSPSLKKNVAMGYVPCEYSRPGTM  
LLVEVRRKQQMAVVSKMPFVPTNYITLK

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**FIGURE 384**

AGCGCAGCACTCCCCGCTCGTTGGCCCGGGTATCCAGCGCGGACCACGCGATACGCTGACGCCCGGACGCCGA  
TCCGCCCGAGCCCAAGTAAGGGGGACGGCCGAGACGGAGAAGGGAGAGAGTGGGAGTTTCCAGCCCCGAGAAT  
TTCGAAGTTGAGAAGAGAACCCCTGGAACGTGCGCTCAGCACTGGGATTTTCTGGACTCAACGATGACTCTGAAT  
AATGTCCACATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCATCCCACTGATGGCAGG  
CATCTGATGGTCCAGAAAGAGCCCCACCACTACAGCCACCGCAACCGCCATTCTGCTACCCCTGAGGACCCTGCG  
CGCCGAAGTGGTCTCTGACTCCACAGACTCAGTCATCTCCTCTGAGTCAGGGAAACCTACTACCGAGTGGTG  
CTCATAGGGGAGCAGGGGGTGGGCAAGTCCACTCTGGCCAACATCTTTCAGGTTGTCATGACAGCATGGACAGC  
GACTGCGAGGTGCTGGGAGAAGATACATATGAACGAACCCCTGATGGTTGATGGGAAAGTGAACGATTATACTC  
CTGGATATGTGGGAAAAAAGGGGGGAAAAATGAATGGCTCCATGACCACTGTCATGCAGGTGCGGGACGCATACCTG  
ATTGCTACTCTCAATCAGACCCGAGCGAGCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCCGAGGGCCCGG  
CAGACAGAGGACATTCCATAATTTTGGTTGGCAACAAAAGTGAAGTCTAGTGCAGTGCAGAGAAGTGTCTGTATCA  
GAAGGGAGAGCCTGTGCAGTGGTGTGTTGACTGCAAGTTTCATCGAGACCTCTGCGAGCTGTCCAGCACAACGTGAAG  
GAGCTGTTTGAAGGCATGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAAGAAATGAACGCGCGCTGGCC  
TACCAGAAAAGGAAGGAGCATGCCAGGAAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAG  
AATATGGCCTTCAAGTCAAGTCCAAATCCTGCCATGACCTCTCTGACTCTAGCAACCCAGGGTCACCCAGATG  
TCCCTTTGATGGCCCTTGTGAAGGCCATTGGGACCAATAATCTATATTAGATTGAATACTTAAGTTAGATGTGG  
TTTCCCCCATTTGTAGCAGGGAGCTAGCGTATTAGCCTTGTGGGCAACATGATGCATGGGAAATGAAAGATTTTGT  
TAAAAAGTCAGTATTTATTCCAGGAAAAGCCTGACCTTGCTATTTGAACACCCAAGACTCTTTAGAGGATGTGT  
TTGGTGTTCACATGTGTTTCTTCTATTTTGGATAGTAGGGAAGTAAAGCTTACAAAGAATGCCTAGAACAAAGAAC  
TTTTATCATATAAAAAATTTTCCAGTGTTCTGATATGTGACTTTGAGGCCAATGAGTCATAAACAAATATAAGA  
AAGCTGTCAATGAGTTTCTTCAAAGGAGGGAAAACTTCTACGAATCTAAGATCCATGGAGCTAGAATTGTAGAA  
CTAGGCTCATCAGAATCGTGACTATTATTGCTCCATCAAAGTGTGAAAAAGAAATGATGTGGACCTTGCTGGAAC  
AAAGGCTTAGCAAAACAAATTTTGTTCATGCCCCACCGAGACATATAGAATTGGGAACCTGATACATGTGTCCTTA  
TAGGCTCAAAAATTATATCTTACAATTTCTTATTAGGGGGGAAATTATTGAATCAGATTCATTTTGTGCAACC  
ACCTTTTATGTTTTATTATTTTGAATTCATGGAGCCATCAAAAAATATTTTAAAAATCAGAATTTATGATACC  
CTGTAGTGCAAAATGTCAATTTTAAATGTATAATCAGAAGTCTGAATTTTCAATAAAACATATAGCATAAAACTC  
CCAGTACTTTGGTGGACCCCTGTATGTACAGCTCTGCTCTATTTATTATTTATTTTGCAAAAATAACCATTTTAA  
ATTGTATAAGCATATTTATGAACATATTTCTAATAAGAAAAATATCCATTTTATTACCATTTTCTATCTTTT  
CAAAATATGCAAGTTTTTACCTATATGCTTATAATAAAGAAATAAAATATTGA

**FIGURE 385**

MTLNNVIMRQGTVMQPQQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSDTSVISSESGNTY  
YRVVLIGEQQVGKSTLANIFAGVHDSMDSDCVLEGTERTLMVDGESATIIILDMWENKGENEWLHDHCMQVG  
DAYLIVYSITDRASFELRIQLRRARQTEDIPILVGNKSDLVRCREVSVSEGRACAVVFDCKFIETSAAVQ  
HNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWKGIVAKNNKNMAFKLKSCHDLSVL

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FIGURE 386A

ACGTTGCCCGGGATGCGGACAGGTTCCGCCGCTCCAGCGCCCATCTTGAGCCGATTATCTGCAATTATGAAT  
GAAGTAACCTCAAGATGAGCAAGTTAAAAAGTGATACCGAAAAAAGCCTTACCAATAATTCTAGGATCGTAGGACT  
CCTGGCTCAACTGGAGAGATCAATGCTGAGCCTTCAGAAATCAGACACTGCCCAATGTTTACATCAAAAAATTC  
TCATCTGGCTCAGAGTCAAGAAAAAAGCAAGGAGAGAAATGACAGCCAAAGGTTCTACAGGAATGGAATTCGTCT  
GTCAACATTAGAGAACCAAAAGATCTTCAAACCTACACTTAATATCTTAAGCATTCTTGTTGAGCTGGTGTCAGC  
TGGTGGAGGCTCGAAAGAGATGTTCTTAGTCACCAAAAGGTGGTTCAACAATATCTTGTCGACTTACTTATGAATGC  
CAGAAAAGAAATCTCCCAAGACTAGGACTTAATGGTACAGATTCATCTTATCTTGCAAGATTGGACCAAAAGA  
TAAAAAATTTGGAGTAAAGGCTAGAATTAATGGGGCTCTGAATATAACCCGTAATTTGGTCAAGCAGAATTTGCA  
GAATCATCGCTTGGTTCTACCTTGCCCTTCAGCTTTTACGAGTATATTTTGCCAACTCTGTGAATTCAGTATCCTT  
AGGGAAAAATGGAGTTGGGAACGTGATGTTTAAATCATTTGGACCATTTAGTAAGAAGAAATTCAGTCTTATAAA  
GGTTGCTTTAGACACTCTTGCTGCATTGCTAAAATCAAAAACAAATGCCAGGAGAGCTGTAGACAGAGGATATGT  
CCAAGTGCTTTTAAACAAITTTATGTAGATTGGCACCGCCATGATAACCGGCATAGAAACATGTCTCATTGCGAAAGG  
AATTTTACGGAGTTTAAAAAGTGTACAAACATCAAGTTGGGAAGAAAGCAATTTATTGATGCCAATGGGATGAA  
AATTCGTATATACTCTCGCAATTGCCCTGTTATCTCTGTGACTGGTCTCTGTGGCTCAGCTCTACAGCTTACCTCC  
TGAAGTGGATGACGTAGTAGATGAAAGTGATGACAAACGATGATATTGATGTAGAAGCTGAAAACGAACTAGAA  
TGAAGTAGACCTTAGATCAAAATTTTAAAGATGATGATATTGAACAGATATTAAACAACTAAACCCAGCAAGA  
ACCGGGACGAAACATAGAGATCTAAAAATGATGAACACCTTTTCCCTGAGCTTGTGTGATGATTTTCAGGACTA  
TGATTTAATCTCAAAGAACCAAGCCCTTTTGTATTGGAGGAAAGTACGTGGTCCCTATTGTTGTCTCCACGGC  
AGGCGAGGGAACATCTGGGAATTTGCGCAATTTAAGAAAAGTTGTAATGAAGGAGAACATATCTTCAAAGGAGA  
TGAAGGTGAAAAGAGTCTACCTTTATGATCATGACAAAAGAGATATTAAAGATAATGTATGAAGCAATTACAACG  
CGACGCAGGTGATCAAAATAGAACTATTTCATCAGTCCATGGTTTAAACAATGATATTGTAAGGCGCTTGCAACG  
AATTACATTGCAGAAATATTCCTTCTCAAAACAGCCCCAGGTTTACTGCAAGAAATGAAGAAGGACTGCAGTCTTCC  
TCTTACTGTCTTACCTGTGCTAAAGCATGTGCCACATGGCTACTTGTGGAAGATGTTCTGTTTGGAGGAAAGAC  
AGTTCAGTCTAGGAAGCTTTTGTCTGCATGGAGTTGGAACCTGAAGATGAGAGATCATGAGTCAAACTCATCGGT  
AGAACAAGCATCGGTTGAAGTACCTGATGGACCAACACTCCATGACCCAGACCTCTATATTGAGATTGTGAAAAA  
TACGAAGTCTGTCCAGAAATATTCAAGAGTGCGCTTATCCCGATTATTTTGGTCACATTCCGCCCTCCATTCAAAGA  
GCCTATTTTGAAGAGGCCCTTATGGTGTACAAGGACAAAAATTGCTCAAGATATTGAAGGGCTAAATACATCAGAG  
TGATATCATAGATCGGTGGTATATGACTTGGATAACCCAAATTTACACCATTTCCAGAAGAGGAGATATTTGAA  
ATTTAACTCCAAATTTGAGTCTGGGAATCTGCGCAAGTAATCAAATAGAAAAATGAATATGATCTTATTCT  
GAACCTCAGACATAAACAGCAATCATTTATCATCAGTGGTTTACTTTGAAGCTCAGTGGAAATGCGACCAAGGTGTTGC  
TTACAGGTTTAAACATCAATTAAGTGTGAAAAGTCCCAACAGTCAAGTTTAAATTTATGGTATGCAACCACTCATGTTATTC  
GGTTACGGAAGCATTAATGCTGCAGACCATGGTGGATTCTGATGGGCACTGACATTTGTACTATAAAAAATCATTT  
CTCAAGAAGTTCAGTTGCTGCAAGTGGGCAAAAGGAAAAATCCCTACTATACAATTACATTACTGTCAATTTTCC  
ACATAAAGATGATGTTTGCTATTTGCTCTATCACTATCCATATACGTATTCAACTTTACAGATGTCATTTCAAAA  
ATTGGAATCAGCACAACTCTCAGCAAAATCTATTTCGGAAGAGATGGTTATGTGAAACCCCTGTCTGGAACAG  
CTGCCCTTGGTGACTATAACAGCAATGCCAGAGTCTAAATTAATTATGAACATATCTGCCATTTTCAGAAATCGCCC  
TTACGTTTTCTGTCTGCTCGGGTACATCTCGGAGAAATCAATGCAAGTTGGGTTATGAAGGAAGCTTGGAAAT  
TCTCATGAGCAATAACCCCATGCTCATGAGCTTACGAGAACTTATATTTTAAAAATTTGCCCTATGTTAAATCC  
AGATGGTGTCATCAATGGAATCATCGCTGTTCTTAAGTGGAGAGGATTGAATAGGCAGTGGCAAGTCCCAAG  
TCCGGATTACATCTACAATTTACCATGCTAAGGGGCTGTGCAATACTTGGCTGCAGTGAAGCGTTTACCCCTT  
GGTTTATTGTGATTATCATGGCCATTTCCGGAAGAGAAATGATTATTTATGTATGTTTGCAGCACTAAAGAGACAGT  
GTGGCATAACCAATGATAATGCAACTTCATGTGATGTTGTGGAGGATACGGGATACAGGACATGGCTCAAGATCAT  
GAGCCATATCGCCCCAGCATTTTGCATGAGCAGCTGTAGCTTCGTAGTGGAAAAATCTAAGAATCCACAGCAGC  
TGTTGTAGTTTGGAGGCAAAATAGGAGTACAAGAAAGTTATACCATGGAGAGTACTTTATGTGGCTGTGATCAGGG  
AAAAATCAAGGGTTTACAGATTGTTACCCGAGAACTGGAAGAGATGGGAGAGCAAAATTTGTGTGTGCTTTTACG  
TTTGAAGAAGACTGACCTTCCATTGGAGTATAATCTGCCCTTCCAGCTGCTGCTTGTGAAATGATTTTAATGA  
ATCAAGCTGCAAAAGTAACCTAGCCCTACCACCTTATGTCTTGGATGAAGATGAACCTCGATTCTTGAAGAAGTTGA  
TTACAGCTGAGAAAGTATGATGAGTTAGATATTGAGTTGGCTGAAAAATGTAGGAGATTATGAACCTTCTGCTCA

**FIGURE 386B**

AGAAGAAGTACTTTCTGACTCTGAATTATCAAGAACATACCTACCTTGAAGCCCGCTGCCATCTCTTGTTAACTGC  
AAAGAATAAATGAAATATCTTGGTTTTATTTCCAGGAAGCTTGAGAGAAATGAGTTTATACAGAGCTGACTCA  
AAAAGACAAAAGTAAC TTGGGCCAGTTTGGTTTCAAGATAATAAATGTGTTATTAATTAATGATAAAATTGGCG  
CTTGTTTTATTTTCGATATTCAATGCACTTTATGTAGCATTGAATGATCAAAATATTGGATTACCTTTAAAAAAA  
AAAAACCTGAGTATCATTGCATGAATTTTTATCTCCCTATGGTTATATCCTGCATCAAGTGGATAATTTTGAAGT  
GTGTTCAAGATATAAAATTGAAATTTTAGAGTTGTTGAAATCCTGACTTGTGAAAACTAATATATGTACAT  
GGATTTCTATAGATGTGTTTGTTTAGAAGTGGGTAGATATTGCAGATAAGACTGTTCTTCAGAAATCATGTAACT  
ATTGGGTTGTGACTGAAGTAGTGCAGGTTTGCCTTGAAACCATTACATTCTACATTACCAGAAATTAACAAATA  
AAAACGTATTAAATGTTGC



**FIGURE 387**

MSKLVPIEKSLTNNSRIVGLLAQLEKINAEPSESDTARYVTSKILHLAQSQEKTRREMTAKGSTGMEILLSTLE  
NTKDLQTTLNILSILVELVSAGGGRRVSFLVTKGGSQILLQLLMNASKEPPHEDLMVQIHSILAKIGPKDKKFG  
VKARINGALNITLNLVKQNLQNHRLVLPCLQLLRVYSANSVNSVSLGKNGVVELMFKIIGFFSKKNSSLIKVALD  
TLAALLKSKTNARRAVDRGYVQVLLTIYVDWHRHDNRHRNMLIRKGIILRSLSKSVTNIKLGRKAFIDANGMKILYN  
TSQLPVIPVIGPVAQLYSLPPEVDDVVDESDDDDIDVEAENETENEDDLQNFKNDDIETDINKLKPQQEPGRT  
IEDLKMYEHLFPPELVDDFDYDLISKEPKPFVEGKVRGPVVPTAGEGTSNGSGNLRKVMKENISSKGDEGEK  
KSTFMDLAKEDIKDNDRTLQQQPGDQNRTISSVHGLNNDIVKALDRITLQNIQSQTAPGFTAEMKKDCSLPLTVL  
TCAKACPHMATCGNVLFEGRTVQLGKLCCTGVGTEDDEDTESNSSVEQASVEVPDGP TLHDPDLYIEIVKNKTSV  
PEYSEVAYPDYFGHIPPFFKEPILERP YGVQRTKIAQDIERLIHQSDIIDRVVYDLDNPNYTIPEEGDILKFNSK  
FESGNLRKVIQIRKNEYDLILNSDINSNHYHQWFYFEVSGMRPGVAYRFNII NCEKSNQSFNYGMQPLMYSVQEA  
LNARPWWIRMGTDICYKNHFSRSSVAAGGQKGKSYTITFTVNFPKHDDVCYFAYHYPTYSTLQMHQLKLESA  
HNPQQIYFRKDVLCETLSGNSCPLVTITAMPESNYEHI CHFRNRPYVFLSARVHPGETNASVWMKGTLEYLMSN  
NPTAQLRESYIFKIVPMLNPDGVINGNHRCSLSGEDLNRQWQSPSPDLHPTIYHAKGLLQYLAADVRLPLVYCD  
YHGHSRKKNVFMYGCSIKETVWHNDNATSCDVVEDTGYRTLPKILSHIAPAFCMSSCSFVVEKSKESTARVVVV  
REIGVQRSYTMESTLTCGCDQGGYKGLQIGTRELEEMGAKFCVGLLRLLRKLTSFLEYNLFPSSLLDFENDLIESSCK  
VTSPTTYVLDEDEPRFLEEVDYSAESNDELDIELAENVGDYEP SAQEEVLSDSELSRTYLP

## FIGURE 388

GGCGGACGCTGGAAAGCGCGTTCCTGACTCTAATGTACTTAGACACTTGAAGCCACAAAAGGATTATCCCCGA  
GGTTCCCTCATCTGCTCGGAGGATGCCTTTTCTCTTTCTGCCTTGCAGAAATAACAGCAGCCTAGCTGTTGCCCGTG  
ACCACTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTACCCCAAAGGGTGCCGCGCCGAATTGGTTTCTAAGC  
AGAACTTTTAAATGATCCGTTCCAAAAAGGGTAGGAGCCGCGAGACCTTCAACTGCCCAGAGAAAACAAGTC  
TCGCTGCGCAAAGTTCTCGGCCACCGGTCGCGGCCAAGGGCCAAACGGTCCCTCGCCCCACGTTGCCCGAGCA  
CTGCGCGTGCGCGAGCCGCTGTCAAACCGCGCTGACGAGGCGCAGAGAAAAAAAGGCGGGAGCCGTCAATCCCG  
GGTTGAGCAAAATGCGCGCGGAGAAAGGATGACAGGAGTTTACCCGTAGCTTCTTCCGAGGCGCCCGGACCTCA  
GCACGCTTACGCATTCCATCGTGC GCGGAGGTACTTAGCTACTCGGGCCGACGCCACCTGGAGCCCGAGGAGA  
AGCAGGCACGTGAAGCGGCTGGTGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAAGACA  
AACTGGACCTTACCAAGAAGGGCAAGAGGCCCTCCACCCCTTGTAGCGACCCGGAGAGAAAAAGGTTCCGCTTCA  
ATTACAGAGTCGGAGTCCGGCTCTGAAGCCTCCAGCCAGACTACTTTGACCCCCAGCAAGAATGGGGTGGCAG  
CAGAAGTCAGCCAGCCAAAGAGGAGAATCCAAAGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAGGAAC  
GGCAGAGGGACCTGCCGCCACAGAGGGGAGAGGAGCAGTGAGGAGGAGGAAAAAGGGTACAAAGGGGAAGACTA  
GGAAGAAACCTGTGGTAAAGAACGAGGCACAGGCAAGGCCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAAAGTG  
AGGAGAGCGAGGCAGAACCCGTTTCAAGGACAGCAAGAAGGTGGAGGAAATAAAGGAACATAAAGCCTGAAGG  
AAAGTGAACAGGAGAGTGAAGAGGAGATCTAGCCAGAAAGAAAGAGCAGAGAGAGGAGGAAGTGGAGGAGGAAG  
AGAAAGAAAGAGGATGAGGAAAAGGGGATGGAACCCAGAAACAGGAGCAATGGCCGGAGAAAGTCAGCTAGGG  
AGGAGAGGAGCTGTAAAGCAGAAAAGCCAGCAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAGAAAG  
AGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCACTGACAGAGGAAGAGTGAGGACAGGACCC  
AGCTTAAGGGTGGGAAGAGGTTGAGTGAAGCAGCAGGAGCAGGAAAGCAGTGGAAGAGGGGAAACCCACAGCTA  
AAGGCTCAGAAAGATGGCCAGACTGGGCAGCACCAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGTGACA  
CGCAGGCGAGGGGAGGCCCCAGGGGAGAGGAAGAACCGCTCTTCCAAGAAGAGCTCCAGGAAGGCAGGACAC  
GAAGCTCCTCTTCTCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAGGCTGGCTCAGTGC GCGGTGGAGAGG  
ACCACCGGCTGTGATGAGGCTGAAGCGCTACATTGGGCTGTGGTGCCATCGAAACTACAAGAAGCTGTTGG  
GCTCCTGTTGCTCACACAAGGAGCGCTGAGTATCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGTACCC  
CTTCCCTAGGGAAGTGTGCGGCCCTGAAGGAGCAGAGGGAGGAGGCAGCTGAGGTGGCCCTCCTTGGATGTTGCGA  
ACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCTTTAGGAGAAGCAGCACCCCCAGGGG  
AGCTGTACCAGCGACCCCTGGACTCAGATGAAGAGCGGCCCCGTCCCAGCCCCAGACTGGTCACATATGCGTG  
GCATCATCAGCAGTGATGGCGAGAGTAATCAGGCTCTGCCACCCCAAGGAGGACCTTGATACATGTACAAAGC  
ATACATAGCACCCCTTGCCCTGTGCTGTGGAACAGAAGCAGCTTCTTTCAGAGAAGACTGCAGCTCCCAAGGAC  
ACAAGCTGTTGGGATGCTACTTCTCAGCTTCACGCTGTCCTTTAAGGTTGTTATTTTAAAGCTCAATAAAGG  
AGTGTTTTTAATCACCTCAAAAAAAA

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**FIGURE 389**

MAREKEMQEFTRSFFRGRPDLSLTHSIVRRRYLAHSGRSHLEPEEKQALKRLVEEELLKMQVDEAASREDKLDL  
TKKGKRPTTPCSDPERKRFNFNSESESGSEASSPDYFGPPAKNGVAAEVSPAKEENPRRASKAVEESSDEERQRD  
LPAQRGEESSEEEKGYKGKTRKKPVVKKQAPGKASVSRKQAREESESEAEFVQRTAKKVEGNKGTSLKESEQ  
ESEEEILAQKKEQREEEVEEEKEEDEEKGDWKPRTRSNRRKSAREERSCKOKSQAKRLGLGSDSEEEQKEAAS  
SGDDSGRDREPPVQRKSEDRQLKGGKRLSGSSEDEEDSGKGEPTAKGSRKMARLGSTSGEESDLEREVSDSEAG  
GGPQGERKNRSSKSSRKGRTRSSSSSDGSPEAKGGKAGSGRRGEDHPAVMRLKRYIRACGAHRNYKKLLGSCC  
SHKERLSILRAELEALGMKGIPSLGKCRALKEQREEAEEVASLDVANIISGSGRPRRTAWNPLGEAAPPGLYR  
RTLDSDEERPRPAPPDWSHMRGISSDGEN

## FIGURE 390

CTCCCTTTGGGCAAGGACCTGAGACCCTTGCTAAGTCAAGAGGCTCAATGGGCTGCAGAGAAGAACTAGAGAAGG  
ACCAAGCAAAGCCATGATATTTCCATGAAATGTCAGAGCACCAGAGGGACTTATGGAAACATCTTCAAGTTGTG  
GGGGTGGACAAATGCTCTGTTGTGATTTCTCGGCACATCATGGAACCGACTGCTGGACTTACCATTATTCTGAAAA  
ACCCATGAACCTGGCAAAGGGCTAGAAGATTCTGCCGAGACAATTACACAGATTTAGTTGCCATACAAAACAAGGC  
GGAAATTGAGTATCTGGAGAAGACTCTGCCTTTTCAGTCGTTCTTACTACTGGATAGGAATCCGGAAGATAGGAGG  
AATATGGACGTGGGTGGGAACCAACAAATCTCTTACTGAAGAAGCAGAGAAGCTGGGAGATGGTGAGCCCAACAA  
CAAGAAGAACAAGGAGGACTGCGTGGAGATCTATATCAAGAGAAACAAAGATGCAGGCAAAATGGAAACGATGACGC  
CTGCCACAAACTAAAGGCAGCCCTCTGTTACACAGCTTCTTGCCAGCCCTGGTCATGCAGTGGCCATGGAGAATG  
TGTAGAAATCATCAATAATTACACCTGCAACTGTGATGTGGGTACTATGGGCCCCAGTGTGAGTTTGTGATTCA  
GTGTGAGCCTTTGGAGGCCCCAGAGCTGGGTACCATGGACTGTACTCACCTTTGGGAAACTTCAGCTTCAGCTC  
ACAGTGTGCCTTCAGCTGCTCTGAAGGAACAAACTTAACTGGGATTGAAGAAACCACTGTGGACCATTGTGAAAA  
CTGGTCATCTCCAGAACCAACCTGTCAAGTGATTTCAGTGTGAGCCTCTATCAGCACCAGATTTGGGGATCATGAA  
CTGTAGCCATCCCCTGCCAGCTTCAGCTTTACCTCTGCATGTACCTTCATCTGCTCAGAAGGAACCTGAGTTAAT  
TGGGAAGAAGAAAAACCAATTTGTGAATCATCTGGAATCTGGTCAAACTCCTAGTCCAATATGTCAAAAATTTGGACAA  
AAGTTTCTCAATGATTAAGGAGGGTGATTATAACCCCTCTTCATTCCAGTGGCAGTCATGGTTACTGCATTCCTC  
TGGGTTGGCATTATCATTTTGGCTGGCAAGGAGATTAAAAAAGGCAAGAAATCCAAGAGAAGTATGAATGACCC  
ATATTAAATCGCCCTTGGTGAAAGAAATTTCTGGAATACTAAAAATCATGAGATCCTTTAAATCCTTCCATGAA  
ACGTTTTGTGTGTGGCACCTCCTACGTCAAACATGAAGTGTGTTTTCCTTCAGTGCATCTGGGAAGATTTCTACC  
TGACCAACAGTTCCCTTCAGCTTCCATTTTCGCCCTCATTTATCCCTCAACCCCCAGCCACAGGTGTTTATACAG  
CTCAGCTTTTGTCTTTTCTGAGGAGAAACAAATAAGACCATAAAGGGAAAGGATTTCATGTGGAATATAAAGATG  
GCTGACTTTGCTCTTTTCTGACTCTTGTTCAGTTCATTCAGTGTGCTGACTTGATGACAGACACTTCTAAAT  
GAAGTGCAAAATTTGATACATATGTGAATATGGACTCAGTTTTCTTCAGATCAAATTCACGTCGTCCTCTGTAT  
ACTGTGGAGGTACACTCTTATAGAAAGTTCAAAAGTCTACGCTCTCCTTTCTTTCTAACTCCAGTGAAGTAATG  
GGGTCTGTCTCAAGTTGAAAGAGTCTATTTGCACTGTAGCCTCGCCCTCTGTGAATTTGGACCATCCTATTAAAC  
TGGCTTCAGCCTCCCCACCTTCTTCAGCCACCTCTCTTTTTCAGTTGGCTGACTTCCACACCTAGCATCTCATGA  
GTGCCAAGCAAAGGAGAGAGAGAGAAATAGCCTGCGCTGTTTTTGTGTTGGGGGTTTTGCTGTTTCCCTTTTA  
TGAGACCCATTCTTATTTCTTATAGTCAATGTTTCTTTATCACGATATTTATAGTAAGAAACATCACTGAAAT  
GCTAGCTGCAAGTGACATCTCTTTGATGTCAATGGAAGAGTTAAACAGGTGGAGAAATTCCTTGATTCACAAT  
GAAATGCTCTCCTTTCCCTGCCCCAGACCTTTTATCCACTTACCTAGATTCTACATATTTCTTAAATTTTCATC  
TCAGGCCCTCCCTCAACCCACCACTCTTTTATAACTAGTCCTTTTACTAATCCAAACCCATGATGAGCTCCTCTTC  
CTGGCTTCTTACTGAAGGTTACCTGTAAATGCAATTTTGCAATTTGAATTAAGGCTGCTTTTAAAGTGTAA

**FIGURE 391**

MIFFWKQSTQRDLWNIFKLWGWIMLCDDFLAHHGTDWCWYHYSEKPMNWQRARRFCRDNYTDLVAIQNKAEIEY  
LEKTLPFSSYYWIGIRKIGGIWTWVGTKNSLTEEAENWGDGEPNNKKNKEDCVEIYIKRNKDAGKWND DACHKL  
KAALCYTASCQPWSCSGHGECVEIINNYTCNC DVGYYGPQCQFV IQCEPLEAPELGTMDC THPLGNFSFSSQCAF  
SCSEGTNLGIEETTCGPFGNWSSPEPTCQVIQCEPLSAPDLGIMNC SHPLASFSTSACTFICSEGT ELIGKKK  
TICESSGIWSNPSPICQKLDKSF SMIKEGDYNPLFIPVAVMVTAFSGLAFI IWLARRLKKGKKSKRSMNDPY

## FIGURE 392A

AAC TCA TCGCGCCAGAGCGGGAAAGAGACTCGTCTTTGCGTCCGAGTTCTGGAGCCGCCGACCCCGACTCCTGG  
GGCCGCGGCGAGCGGCTGCGAGGGGACGGGCGTCCGCTGTCTCTGGGTTCCCTCGTAGCGACCCGCGGATCGG  
AAAAAAGAGAGAACTCTGAGGAGGAGGGTGGGCGAGCAGCGCGCGCGCGGGGACAGCGCGGACGGCGGAGC  
GAGGAGAGCAGCTCTCACTGTCAAGCAGGAGCTGCGGACTGTCTAAATTGTCAGGACAATGCTGAGAAGTGGGA  
TAGAAAATTTTGAGCTCTGAAGTGCTAGGAAGCTGAGGCTTATGGAAAAGTATTTCTAGTTTCGTAATAAAGTG  
GCCATGATACCTGGAAAGCTGTATGCCATGAAAGTTTTGAAAAAGGCAACAATCTGTCAAAGGCCCAAAACACAG  
AGCATACAAGGACAAGAACGACTCTGGAACACATTAGGCAGTCGCCATTCTTGTTGAACATTACATTATGCTTT  
TCCAGACAGAAACCAACTTCATCTCATTTTAGATTATATAAATGGTGGTGAACTTTTTACTCATCTTTCTCAA  
GAGAGCGTTTCACAGAGCATGAGTGCAGATTTATGTTGGAGAGATTGTGCTTGCCCTCGAACATCTCCACAAGT  
TGGGGATTATATATCGTGATATTAAGCTTGAGAATATTTACTTGTATCTAATGGCCATGTGGTGCTGACAGATT  
TTGGTCTGAGTAAGGAGTTTGTGGCTGATGAACTGAAAGAGCATATTCCTTTTGTGGAACTATTGAATACATGG  
CACCAGATATTTGTCAAGGGGAGATTACAGGACATGACAAGGCAGTTGACTGGTGAGATTGGGTGTTCTAATGT  
ATGAATTACTAAGCTGGAGCATCTCTTTTCACTGTTGATGGAGAAAAAATTCCEAAGCTGAGATATCTAGGAGAA  
TATTAAAAAGTGAGCCTCCATATCCCCAAGAAATGAGTGCCTTAGCGAAAGACCTTAATCAGCGCTCTTTGATGA  
AAGATCCCCAAGAGAGATTGGGATGTGGTCCACGTGATGCAGATGAAATCAAAGAACATCTCTCTTTTCAGAAAA  
TAAATTTGGGATGATTTAGCCGCAAAAAAGTGCCTGCACATTAAAGCCAGTATTCGAGATGAATTAGATGTGA  
GTAACCTTGCGAAGAGTTACAGAAATGGATCCCACTTATCTCCCGCAGCGCTGCCCGCAGAGTTCTGAGAAGC  
TGTTTCAGGGCTATTCCTTTGTGTCTCTTCCATCTTATCAAGCGTAATGCAGCTGTCTATAGACCTCTTCAGT  
TTCATCTGGGAGTTGAAGCTCTGGAGTGACAAATGTTGCCAGGAGTGAATGATGAAGGACTCTCCATTCTATC  
AACACTATGACCTAGATTGGAAGCAAAACCCCTGGGAGAAGGTAGTTTTCAATTTGTGCGAAGTGTGTGCATA  
AAAAAGTAACCAAGCTTTGCAAGTCAAAATAATCAGCAAAAGGATGGAAGCCAACTCAAAAGGAAATAACAG  
CTCTGAACTCTGTGAAGGACACCCCAATATTGGAAGTTGCATGAAGTTTTTCATGATCAGCTTCACAGTTTC  
TAGGTGTGAACTCTGTAATGGGAGGAACTGTTGACGCATTAAAGAAAAAGAGCACTTCAGTGAGACGGGA  
CAGCTACATCATGAGGAAGCTTTGTTGAGCTCAAGCCACATGTCATGTTGAGTGGTGACAGGGATCTGA  
AACCTGAGAATTTATGTTTACCAGATGAAAATGACAATTTGGAATTAATAATTTGATTGTTGGATTGACAGGC  
TAAAGCCACCGGATAATCAGCCCTGAAGACTCCATGCTTACCCTTCATTATGCCGCCAGAGCTCTTGAATC  
AGAACGGCTACGATGAGTCTCTGACCTGTGGAGCTTGGCGCTCATTGTTACACAATGTTGTCAGGACAGGCTC  
CCTTCCAATCTCATGACCGAAGTTTGACGTGTACCAGCGCGGTGGAATCATGAAGAAATTAATAAGGGAGATT  
TCTCCTTTGAAGGAGAAGCCTGGAAGAATGTATCCAAGAGGCTAAAGATTTGATCCAAGGACTCTCACAGTAG  
ATCCAAACAAAAGGCTTAATAATGTCTGGCTTGAGGTACAATGAATGGCTACAAGATGGAAGTCAGCTGTCTCCA  
ATCCTCTGATGACTCCGGATATTTCTAGGATCTTCCGGAGCTGCCGTGCATACCTGTGTGAAGCAACCTTCCACG  
CCTTTAACAATAACAAGAGGAGGGGTTTTGCCTTCAAGATGTTGATAAGGCCATTTTTCCTGAGAGAAGAAAA  
TGAAAAAGACTAGCACAGTACCGAGACGCGCAGAGGGTCCAGTGAGAGTTCCCATTTCTTCTCTCTCATTTCTC  
ACGGTAAACTACACCCACCAAGACACTGCAGCCAGCAATCTCGCCGACAGCAATAACCCGGAGACCTCTTCC  
AGTTCTCGCATCAGAGCTTAGGCATGTTAGGAGTGATCAGTGAATCCATTGACCACTTTATTCCTCAGCATATGC  
CTGAGTCGATCTTTTATGCTTTTAAAAATGTTTCCCGTGGTCTCATTGGAATCTGCCTCCTAATGATTTTTTC  
AGGAAACACTGTTTGGTTATCTCTATCTAAAGCACTGGACAGAGAATGTTACTGTGAATGAGACATATATTCT  
CTTTTACGAACCTAGCATAGTGCACCAAGACTATTTCTGAAAGAGCAAGATTTCTGTAAATTTAATTAGGCG  
TAGATTTGAGCTGCTGTGAAGTCACAGGTTTTCCAGATGCTGCCAACAGAAATGACTCATACTGTGATGATAC  
CTTTTGCTTTGCTTGTGGACAATGTGGGTTTTTGAAATTTGCACCCCTCAAACAATGTTTATCAGAGAAAGGG  
GTCGTTTTCAAAAAGAGTTCTTCTCGGCAATTTGTTTATGTGGCATATACCTTATTTCTGAGAGAAGATTTAACT  
TATGTTTTTATTTATGGTTACATATGATGATAACCTGCTATTATTAACCTTTTTCTAAAAAGTGAAAAAAT  
AAAAAAGATATAAGAACCTAAGGTCCTACTCTGTATTCGGGATCCATCTGAGATGCATGTCAAGCTATGTGTA  
TGTTTTTAAATTTTCTGCTGCTTTCTCGGCAATTTGTTTATGTGTTATGCGAATATTAAGGTACATGTCTC  
TCTGTTTTAAGTAATATTGCACTTTATAAAAAAGATGAATAAGCAAACTATTTATAAGGTGCACTGTATAA  
GCATTTGCACTGATTTTTTGCCATTTATTTCACTTTAAATTTGCTTCACTGTCTCTCTCTCTTCTTGTG  
TATGCAACAAGTAGAATGGGCGCTTGTGTGCTATGATGACGCCACTTATGCACCAATGTGAGGAAAACTAAA  
GGGAATTAACCTAACACTGTGCTTCATATTGTACACTGTGTGTACTACAGTAGGAAATTTCTCTCTGTAGT

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**FIGURE 392B**

CATATATTATGTACATAATATTTTGAATCATACCTATGACTTGTGTTGGAAATTTTCTGTTGAATTTTAAATCC  
AGAAAGCATATTTTATAAACTTATGCAGAGCACTTTATTGCTCAAAAGTTCTGAATTCATACAGAAAAACAAGTA  
CTATGTGATGAAAACATTTCAATTGAAAGATTGCGGCATTTAAAAATACAATTAATTCGTTCCCTATGCAAAAAA  
AAAAAA

**FIGURE 393**

MEEEGSSGGAAGTSADGGDGGEQLLTVKHELRTANLTGHAKEVGIENFELLKVLGTGAYGKVLVRKISGHDTG  
KLYAMKVLKKATIVQKAKTTEHTRTERQVLEHIRQSPFLVTLHYAFQETETKLHLILDYINGGELFTHLSQRERFT  
EHEVQIYVGEIVLALAEHLHKLGI IYRD IKLENI LLDSNGHVVLTD FGLSKEFVADETERAYSFCGTIEYMAPDIV  
RGGDSGHDKAVDWWSLGVLMYELLTGASPF TVDGEKNSQAEISRRLKSEPPYPQEMSALAKDLIQRLLMKDPKK  
RLGCGPRDADEIKEHLFFQKINWDDLAAKKVPAPFKPVI RDELDVSNFAEEFTMDPTYS PAALPQSSEKLFQGY  
SFVAPSILFKRNA AVIDPLQFHMVERPGVTNVARSAMMKDSPFYQHYDLDLKD KPLGEGSF SICRKCVHKKSNQ  
ALQVKIISKREANTQKEITALKLCEGHPNIVKLHEVFHDQLHTFLVMELLNGGELFDALRKKKHFS ETEASYIM  
RKLVSALSHMHDLGVVHRDLKPENLLFTDENDNLEIKI IDFGFARLKPPDNQPLKTPCFTLHSCREPELLNQNGYD  
ESCDLWSLGVILY TMLSGQVPFQSHDRSLTCTSAVEIMKKIKKGDFSFEGEAWKNVSQEAKDLIQGLLTVDPNKR  
LKMSGRLRYNEWLQDGSQ LSSNPLMTPD ILGSSGA AVHTCVKATFHAFNKYKREGFCLQNVDKAPLAKRRKMKKTS  
TSTETRRGSSESSSSSSSHSGKTTPTKTLQPSNPADSNNPETL FQFSDELHRGRSDQ



## FIGURE 394

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAAATTTTTGATAAAAACAGTCTATA  
TTTTATTAAAAAATGAATTTATAACCCATTTTCAGTTTTGCCTGCATCATAAAGAGTGAGCACTCCATTGCTTTCTT  
TCCTGGCCACACTGCTACAAATCCAGCATAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACT  
GCCAGTGA AAAAGCTACGTCCTTTACTGCTATAAATTAGAGGAAGCAATTTCCGGAACAACGGAACTTCAAACATATA  
AATACTGAATTATCGAACACTTGCAGGCACCTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA  
ATTTCTCTACTATGATTCCTGTCTCTGCGCAGATGCAATTCACCAACCTCTTCAAGAAAAATGAAGCAGTGTG  
CCACAAACTATATGCTGGTCAAGAGCAAGAAATACATCAGACACCCCTGACCTTGAACATACGTGCTGGTACAC  
ACCTCTGCTGGATGCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCTGGAACTCAACACCTTTCTCAGGTGT  
AGCCAAACCAATCCACACTCTGTGTGAAGGGCCACATATGGAGAAGTAAAGGATGGTGTCTTGGATGTAAAAAG  
ACAACACAAGTGCCAGGCCCCACAAGTGGCCCGCCAGCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA  
TGACCCAAGATGGAAGAGAATGGTGTGAACGCGTGTGTCTGAGAGCCTGCTCGAGTCCAGGGGATATTCCTC  
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCGAA  
TATGGCTTCTGTGACCTTGACAGAACTCGCTCTGTAAGAAAAGAGGAGGATACAAGATCAGCTTCTCCACGAT  
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATGCAATCCAAGACTCTACGAGTAAGGATAAAACCATATT  
AAATCTGGAAGCCAAAGAGGAACCGAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGT  
TTCCTCTTCTTCGTAACCACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA  
GGTGGAGGCAGAATTTCTCAGATTATCTTTGGGATTAAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT  
TGAAGAGAGTCCCGTGACTGGGCAGAAAGAAATTTGAAGAAAGAAATCACTAATCTTTAAAACTATTAGAGTC  
TTTAAACCTCTGTGTGAAGATGACAACCGGCACAGGAAATCATTAAAGAGCTGGAGAAGAGTATAAAGTTTCT  
TAGCCAGTGTGAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTAGTAA  
AGCAGTTGAAGTGATGATTACAGACGTAGAAAACCTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA  
ACTGAAACAGGTTCTTCTGCAGAAATGAAAGGCTTTTCAA TCTCTTGAAGATGATGATGACTGCCAAATTA AAAA  
ACGTTTCAGCTTCTCTAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG  
AAATGCAGGAATGGTGGCTGGGATGGAAAAATAATGATCGATTCAGTAGAAGGTCAGCAGTTGGCGTATTTTGGG  
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTATTAGCACCTATTCTCTGGGCAGATGCTGAAGAAGA  
AAAAATGTGAACATAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAAG  
TCTTTCTGAAAAAGAAAAATAATCCATCAAAGTGGGATGCTCTTTCAGTTTATGACACAAATAGCTTCTGGGCAAC  
AAATCTCAAGTCCCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTATGTACTGTTTGCAGC  
TTTGATGAGCTTCTCACAGGCCAATATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG  
GACGTCTCTAGAACATATCTTGTGGCCATTTACAGACTCCGACACAATGGGCCACCACAGTGTGACAGCAGGA  
CATCCTAATAATATGAGATCTTGATTTTAAAGTTTCAGTATCTGAACCTTCGTAAATTAGTAACTTTTAGCTGGGAAA  
GTATAGCATGAAACAGAGGTTCTCAGAAATGACCGTAAGATAGCTTACATTTCTCTTTTGGCTTTATCTCCCC  
AACTAAAAATCAATGGG

**FIGURE 395**

LESTPFSGVANQIHTLCERPTYGEVKDGDALDVKRQHKCPGPTSGPSPGTNLSCGIRMNDPMSMEENGVERVCPES  
LLQSRGYSSLPLPRHTSSDTGITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD  
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTIVKSVNVQRSENTSANEKEVEAEFLRLSLGFKCDW  
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESLTPLCEDDNQAEI IKKLEKSIKFLSQCAARVASRAEMLGA  
INQESRVSKAVEVMIQHVENLKRMAYAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRASLNSKPSSLRRVT  
IASLPRNIGNAGMVAGMENNDRFSRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE  
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTQQLFQKSVDA  
APTQQEDSWTSLHILWPFFTRLRHNGPPP

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FIGURE 396A

CGAAAGGCCGGCCTTGGCTGCGACAGCCTGGGTAAGAGGTGTAGGTCGGCTTGGTTTTCGCTACCCGGAGCTGG  
GCAAGCGGGTGGGAGAACAGCGAAGACAGCGTGAGCCTGGGCCGTTGCCTCGAGGCTCTCGCCCGGCTTCTCTTG  
CCGACCCGCCACGTTTGGTTGGATTAAATCTTCAGGTTGCCGCCGCCGCCGCCGCTGGCCTCGCGGTGTGAG  
AGGGAAGCACCCGTCCTTGCTTGGCTGGCTGGCCCTGGAGGGTCGCAACCCGCCGCCGCCGCCGCTTGTG  
CCGCCGCCAGCCGCTGCCCTGAACTGACCGCGGAGTCGTGTTTGTGTTTACCGCCGGGCCGCCGTTGGCGCGGCCGAG  
GCCGGTGTGGCGGGCGGGGCGGTCGCGCGGAGGCGAGAGGAAGAGGAGCGGAGACCTCTCGCAGAGCGGGCG  
GCCATGAAGTCTGGCGCCAGCCGCCGCCGCCGCCGCTGCTCTTCGCTGCAAGCCCCCTCCCGGCTCGCAGCC  
CGTCGTGAAGGCGCTATTGGCGCTTCAGCGCCGCCGGGGACTGTCGCTGTACCAACCTGACCGTCACTATGGA  
CCAGCTCGAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAATCTGCAGAGAATGGG  
CTCTCCGAGTCAACAGATTCAGGTTTCTGCTAGATTCTCTGGGCCATTGGCAGTAAGAAGAAACCTTGAAAA  
TCCTATGAGAAGAATACATTCCCTACCTCAAAAGCTGTTGGGATGTAGTCCAGCTCTGAAGAGGAGCCATTCTGA  
TTCCTTGACCATGACATCTTTCAGCTCATCGACCCAGATGAGAACAAGGAAAAATGAAGCCTTTGAGTTAAGAA  
GCGAGTAAGACCTGTATCTCGTGGCTGCCGTGCACTCTCATGGACTCCAGGAGGGTAAAGATCTCTTCACACAGAG  
GCAGAATCTTGCCACAGCTCGGAATGCTTTCCTCAAAAGAGAGATAGCAAGTGAACAGGGAATTTTCATTCCTCT  
TTTTACCCCACTACCTGTGACAGCCACTTTGCTGTAGGAGTATGAGGCTTCGTGGACCTTCTCGATGGAGA  
GAATCTGAAGAATGAGGAGAGACCCCTCGTGATGGCAAGCCTCTGACAGCTCTCTCGCATGAGAATAC  
AACTTGAACAACCGATCAAGAGCTGTTTGAAGTCTCCCTTGTGTAGCTCAGCACTCGGTGAGTGTGAAGAG  
ACCGAGACGATCTCAAGAGGAGTCTCCACTTGAAGTACAAAGAGGAGGAAGCATGTCTGGGCCAGCCCCAA  
AGAGTCAACTAATCCAGAGAAGGCCCATGAGACTCTTCATCAGTCTTTATCCCTGGCATCTCCCCAAAGGAAC  
CATTGAGAACATTTGGACAATGACCAAGGGACCTTATAGGAGACTCTTCAAGGGTTATCTCTTTCATACAGT  
TGCTGGGAACATCAGGATTTAAAAATACATCTCTCCAGAAATATGGCATCTGTTTGAATGGCAAGTTTGCCAA  
CCTCATTAAAGAGTTTGTATCATCGACTGTCGATACCCATATGAATACGAGGAGGCCACATCAAGGGTGCAGT  
GAACCTGCACATGGAAGAGAGGTTGAGACTTCTTATTGAAGAGGCCATTCGTACCTACTGATGGCAAGCGTGT  
CATTTGTGTTTCTACTGCGAGTTTCTTCTGAGAGAGGTCGCCGATGTGCCGATGTGTGAGAGAGAGATCG  
CCTGGGTAAATGAATACCCCAAATCTCCACTACCTGAGCTGTATGTCTGAAGGGGGGATCAAGGAGTCTTTAT  
GAAATGCCAGTCTTACTGTGAGCCCCCTAGCTACCGGCCCATGCCACGAGGAGTTTAAAGAAGACTGAAGAA  
GTTCCGCACCAAGAGCCGACCTGGCGAGGGGAGAGAGCAAGAGGGAGATGTACAGTCGTCTGAAGAAGCTCTG  
AGGGCGGCAGGACCAGCCAGCAGCAGGCCAAAGCTTCCCTCCATCCCCCTTACCTCTTTGCTCGAGAGAACTT  
AAGCAAAGGGGACAGCTGTGTACATTTGGAGAGGGGGCTGGGACTTCCATGCCCTTAAACCTACCTCCCACT  
CCCAAGGTTGGAGCCAGGGCACTTGTGCTGGCTACGCCCTCTTCTGTCCCTGTAGACGTCTCCGTCATATCAG  
AACTGTGCCAAGTACAGTTCTGAGCACCGTGTCAAGCTGCTGTAGGCCACAGTGGGATGAACACCGCGGGGCTT  
TATCGGGCTACGCCATCTCATGAGGGGAGAGGAGACGAGGGGAGTAGAGAAGTTACACAGAAATGCTGTGGC  
CAAAATAGCAAAGACAACCTGGGAAGGAAAGGCTTGTGTGGGATAATCCATATGTTTAATTTATCAACTTCATCA  
ATCATTCTATTTTATTTTCTTCTAATCTCGGAGACTTATTTACTGCTCATTAGGTTGAAATACTGCCATT  
CTAGTAGGGTTTTTATTTACCCAGGACTACCTCGGCNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
GCAAACCTGTTATAAGTTATCGGACAGAAAGCTAGGTGCTCTGTCACCCCCAGGAGGGCGCTGTGGTACTGGGGCT  
GCTGCTATTTAAGCCAAAGAACTGAGGTCCTGGTGAGAGCGTTGGACCCAGGCTTGGCTGCTGACATAAGCTAAA  
TCTCCAGAGCCCACTGGCTAGCATAATCTATTTGGTGGGAGGTGTGGCCCTGTCTTCTCACCCTACCTTC  
ATGACATTGCTCGTATAGGAGCCACAGTCAGGAAAGCACTTGAGGCAGCATCTGTGGGCCACCCCGGCTCAG  
TGCTGGAATGTTGACGTGTAGGTTTCCAGGCAAGGGGGTGGGGCTAGGTGGCTCCACAGGATGGAGGAGGAG  
CATGTCACCTAGTATCTCTCTTATGTTGCTGTGATATGTAGCTTTTATTTCTAATTTTAAAAAATGTGCA  
TATTATGAGTCAAGAGTATCAAAATCAGTGTGGATGGACCACCAAGGTTGAGGAGAGGGGCTGGAAGCGCTGG  
GCATTAGGAGAAGGAGTGGGTGCTGCGCATGACATGATGAGATTTTCTCAGGAGGAGCTGTGTGATT  
TTGAAGGTAACCTTTCTGGGTTTATCATGTTTAAATTTTAGAGACAGGGAGTGATGAATCATACCCGTTGTCC  
CCTTATCACTCCATAAAGTGGGAATTTCAAAGAACCTCATCCAAGGAGCTGGGGCAGACTTCATTGATT  
CTAGAGACCTGTTTTCAGTGCTTACTATCCCTGCGCCTCTGTGGCAGCCTCTTACCATCAGCGCTTCACTGA  
GGTGTAGGTGGGTTTTTCTTAAACAGGAGACAGTCTCTCCCTCTTACCTCACTCTTTGGGGTGGGAATCAGTG  
ATACTGAGATGCTAGTTGCTGTGTTACGGGTTGAGTTACATTTGGCTATAAAACAATCTTGTGGGAAAAAT

**FIGURE 396B**

GTGGGGGAGAGGACTTCTTCCTACACGCGCATTGAGACAGATTCCAAC TGGTTAATGATATTGTTTGTAAAGAAAG  
AGATTCTGTTGGTTGACTGCCTAAAGAGAAAGGTGGGATGGCCTTCAGATTATACCAGCTTAGCTAGCATTACTA  
ACCAACTGTTGGAAGCTCTGAAAATAAAAGATCTTGAACCCAT

**FIGURE 397**

MELGSPSPAPRRLLFACSPPPASQPVVKALFGASAAGGLSPVTNLTVIMDQLQGLGSDYEQPLEVKNNNSNLQRMGS  
SESTDGSGFCLDSPGPLDSKENLENPMRRIHSLPQKLLGCSPALKRSHSDSLDHDIFQLIDPDENKENEAFEFKKP  
VRPVSRGCLHSHGLQEGKDLFTQRQNSAQLGMLSSNERDSSSEPGNFIPLFPTQSPVTATLSDEDDGFVDLLDGEN  
LKNEEETPSCMASLWTAPLVMRTTNLDNRCKLFDSPSLCSSLSTRSVLKRPERSQEESPPGSTKRRKSMSGASPK  
STNPEKAHETLHQSLSLASSPKGTIENILDNDPRDLIGDFSKGYLFHTVAGKHQDLKYISPEIMASVLNGKFANL  
IKEFVIIDCRYPYEYEGGHIKGAVNLHMEEEVEFLLKKPIVPTDGKRVIIVVFHCFSSSERGPRMCRYVREDR  
GNEYPKLHYPELYVLKGGYKEFFMKCQSYCEPPSYRPMHHEDFKEDLKKFRKSRWAGEKSKREMYSLKKL

## FIGURE 398A

CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGGTGGCCCGGGGCTGTCCAGGCACGCGAGGCCCTT  
CAGGTACGCCCTCTCTCCCTGCAAGATCCGGCCCTCAAAGACGAGGGTCAGGCACGGTTACAACCCCGAAACA  
GTAGCACAAGATTAAATTTTAAAGAGCGGTGTTTCTTCGGGGCTTGGCGTTCGTTTCGGAGCTCAGGAAT  
TATGGTCGCCCTTTTGAATGAGCACAAATATGCTTCAACAAGTTCAGAAACATAAATTTTCTGCTGAAGAA  
GGAAGAAATCTTGGAGTTTGGACGTAAATTTAATTTGTTTTAGGAATGCTTAAAGCAATCAAAACATAAACCAAAA  
TTACCTTCTATGATGGTCCCTCTTTGCAACTGGAGTGCCTCACTATGGACATATACTTCGGGGTACAAATTA  
GATATAGTTACAAGATATGCTCACCAGATGGGTTCATGTTGACAGAAGATTGGATGGGATTGCCATTGGCTTA  
CCTGTGGAATATGAAATTTGATAAGACACTGGGAATCAGAGGACCAGAGGATGTGCCAAAATGGGGATTACAGAG  
TATAACAATCAGTGGCCAGCAATTTGTGATGAGATATCTGCTGAGTGGAAAGTCTACTGTTAGCAGACTTGGCCGA  
TGGATTGACTTTTGACAATGATATAAAACTCTGTATCCACAATTATGGAATCAGTCTGGTGGGTCTTCAACAA  
CTCTATGATAAAGCCCTTGTTTATAGAGGTGTGAAAGTCAATGCCCTTCTCTACGGCATGTAAACACTCCACTTTC  
AACTTCGAGTACACACAGAATTTAAGGATGTTCAAGATCCTTCAGTATTTGTAACCTTTCCCTTTGGAAGAAGAT  
GAAACTGTATCTTTAGTTGGCTGGACAACCACTCCCTGGACTCTACCTAGTAACCTTGCTGTGTGTGTTAATCCA  
GAAATGCAATATGTGAAATTAAGATGTTGCCAGAGGACGATTACTCATTTTAAATGGAAGCCAGATTTGTACGC  
CTCTATAAATTTGGAGAGTGTAGATGTAGATCCTTGAAGATTTCTGGTGCTTCTTAAAGCAAGAAGTACAGG  
CCCTCTGTTGACTATTTCTGAAAGTGTAAAGAGAAATGGCGCTTTCAGTGTGCTGTGTGACAACTATGTGAAGGAA  
GAAGAAGGCACAGGGGTTGTCCACAAGCTCCTTACTTCGGTGTCTGAGGACTATCGGGTCTGTATGGACTTTAAC  
ATTATTCGGAAGACTCACTCCCTGTTTGGCTGTGGATGCTTCAGGCTGCTTCAACGAGGAGTACAGATTTC  
GCAGGACAGTATGTGAAGATGCTGACAAAAGTATCATCAGGACTTTGAAGGAACAAGGCCGACTTCTGGTTGCC  
ACCACCTTCACTCACAGTACCCCTTTTGTGAGAGTACAGACACTCCTCTAATTTACAAGAGAGTGGCCAGCTGG  
TTTGTGGGAGTGGAGAACAATGGTGGACCAAGCTCCTTAAGGAACAATGACCTGTGCTACTGGGTCCAGAGTTGGTA  
CGAGAAAAACGATTTGGAATTTGGCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATATCGGGGACC  
CCCATCCCATCTGGGTGACGGATGACTTTGAGGAGGTGGTATGCATTTGGTTCAGTGGCGGAACTTGAAGAATCT  
TCAGGACAAGAATCTCAGATCTCCACAGAGAGTGTGACCACTGACCATTCCTTCACGCTGTGGGAAGGGA  
TCCTTGACCCGCATCTCTGAAGTGTGTTGACTGTTGGTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTTCATTAC  
CCGTTTGAAACAAAGAGGAGTGTGAGGATGCTTTTCTGCAAGTTTTCATGCCCAGGGCATCGACCAAAACGAGA  
GGATGGTTTTATACCTGCTGGTGTGCGCCACGGCCCTCTTTGGACAACCGCCCTTCAAGAAGCTAATTTGTGAAT  
GGGCTTGCTCTGGCAAGTGATGGCCAAAAAATGAGCAACGGAAAAAGAATTTACAGATCCAGTTTCCATCATC  
CAGAAGTATGGTGCTGATGCCCTCAGATTATATCTGATTAACTCCCTGTGGTGAGGACGACAAAACCTCCGCTTT  
AAAGAAGAGGGTGTGCGGGAGCTGCTTAAAGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAG  
AACGTTCTGAGGCTCCAGAAGGAGGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAGGCCCAAC  
ATTACAGACCGGTGGATCTGCTCTTATGCACTGCTCTCAATGGCTTCTTGAGACTGAAATGGCAGCTTATAGG  
CTTTATACTGTGGTGCCCTGCCTGGTCAAGTTTGATAGATATCTGACCAATTTGGTATGTTAGAAATGAACCGCAGA  
AGATTAAAGGGTGAATAATGGGATGGAGGATTTGTGCTATGGCCCTAGAAACCTTTGTTAGTGTTCTGCTTTCTCTT  
TGAGACTTTATAGTCTCCCTACACACTTTTCTCACTGAATTGATGTACAGAAATTAAGAGTGTGATGAGCCCT  
GTTTCTGTTACAGACAAGGACACACTCAGATTCACTACCTCATGCTGCCCGGTGTGCGAAGAATTTGATTGAC  
AAGAAACACAGAGAGTGCAGTATCTCAGATGCAGTCTGTGATTGAACCTTGAAGAGATGATCAGAGACCGAAAAACT  
ATTCCCTAAAGTATATCTTTGAGAAATTTGTGGTTATCCATCAAGATCCAGAGCTCTTAAAGATATCAAGTCT  
TTGGAGAAGTATATCATTTAGGAAGTCAATGTTGCAAAAGTTACACTGCTTACAGATAAAAACAAGTATGGGATT  
CGGCTAAGGGCAGAACAGATCACATGGTCTCTGGGAAGCGTCTGAAGGGAGCCTTTAAGCGAGTGATGACGTCC  
ATCAAGCAGTTGAGCAGTGGAGGAGTGGAGCAGTTCCAGAAGACTGGGACCATTTGTGTGGGAAGGCCATGAAATTG  
CAGATGAAGACATCCGCCCTCATGTACACCTTTGATCAGGCCACAGGTGGGACTCGGCAATTTGAAGCACTCA  
GATGCTCAGGCTTTGGTCTCTTAGATGTCACTCCTGACCACTCAATGTGATGATGAAGAAATGGCTCGGGAAGT  
ATCAATCGCATACAGAAACTTCGAAAAAGTGCATCTGGTTCCAACCTGATGAAATCAGAGTGACTATAAAGCA  
AAGTCTGAAGGAACATCTCAATAGTGTATTGAAAGCCACAGAGATTCAATTTTACCACATAAAGGCTCCC  
TTGAAACCAATACCGATTCTTCCATCGGATAAAGTCCTTATTCAAGAAAAACACAGTTGAAGGATCTGAACTG  
GAAATTACACTCACCAGAGGATCTTCCCTTCCCTGGTCTGCTTTGTGCATATGTCAATCTTAACATTTGTGCAAA  
GGCAGTGAACAAGGTGGAGTATGCTCCTGGAAAAATCCAAAAGGTGACAAATAGGTTGGACCTTTTAAAGCTGAAG

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**FIGURE 398B**

AGTGTGTGCTACTAGCATTTTTGGTGTGAAAAATACAGAGCTGGCTGTCTTCCATGATGAAACAGAAATACAAAAC  
CAAACCTGACTTACTGAGTCTTAGTGAAAAACACTTTGTGTGACTGCAGGATCGGCTCCCTCTCTGATCAACAGT  
TCTAGTACTCTTCTTTGTCAGTATATCAACCTACAGCTCCTGAATGCAAAGCCACAAGAGTGTTTAAATGGGGACA  
GTGGGCACCTCCTGCTTGAAAACCCACTTGGGCAGAAATGGACTCACCCACCAAGGTCCTTCTGTATGAAGCAGCC  
AAGGTGTTTGGCCTTCGGAGCAGGAAGCTAAAGCTGTTTCTGAATGAGACCCAAACGCAGGAAATTACAGAAGAC  
ATCCCCGTGAAGACTTTGAATATGAAGACTGTGTATGTTTCTGTGTTACCAACAACAGCAGACTTCTAGCATGTA  
CTTATCAATGTTGTTTCGGTCAGCCCTTCCCTAATTACACCTATCCCTACACATACATGCACATAGACACACACA  
TGAACACACTGAAGATATTTCCCTCAGGTGTGTGTAATAATATGCTGCTTGGATTGAAATTCAAATGGGATTGATT  
AGTCAAGTAACTTGAGACCTCACAGTAATCTTCACACTTAACCTTAGACACCTATGCAGTCATGTTGGGAGCAGG  
TTACAATGTTACTTCAGCCACAGTTTATTTCTATTCTTGAGTCTTAAGTACAGAAGATAGAAGTGAITTTAAAT  
GGCATAGTATATATCATTTTCTGGCCTTTTAAATTTATTGAGACCTCTTGATGAAATGGACATATTATATA  
TTTCTGCCACCTGGATTTTCTGGATAATTTGATGGAATATTTTAAGTTTCAGTAAATCAGAACAATAAACAAAC  
TCAGATAT

**FIGURE 399**

MLQQVPENINFPAEEEEKILEFWTEFNCFQECLKQSKHKPKFTFYDGPFFATGLPHYGHILAGTIKDIVTRYAHQS  
GFHVDRRFGWDCHGLFVEYEIDKITLGIRGPEdVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLRWIDFDNDYKT  
LYPQFMESVWWVFQQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFVTFPLEEDETSLVAWTT  
TPWTLPSNLAVCVNPEMQYVKIKDVARGRLLILMEARLSALYKLESDYEILERFPGAYLKGKKYRPLFDYFLKCK  
ENGAFITVLVDNYVKEEGTGVVHQAPYFGAEDYRVCMDFNIRKDSLPCVPDASGCFTEVTDFAGQYVKDADK  
SIIIRTLKEQGRLLVATTFTHSYPFCWRSDTPIYKAVPSWFVRVENMVDQLLRNNDLCYWPELVREKRFGNWLK  
DARDWTISRNRWGTPIPLWVSDDFEEVVCIGSVAELEELSGAKISDLHRESVDHLTIPSRGKGS LHRISEVFD  
CWFESGSMPIYAQVHYFPFENKREFEDAPPADFIAEGIDQTRGWFTYLLVLATALFGQPPFKNVIVNGLVLASDGQK  
MSKRKKNYPDVPSIIQYKGADALRLYLINSPVVRANLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVLRQLQKEE  
IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAAAYRLYTVVPRLVKFVDILTNNWYVRMNRRLKGENGMED  
CVMALETFLFSVLLSLCRLIAPYTPFLETMYLQNLKVLIDPVSVDKDTLSIHYLMLPRVREELIDKKTESAVSQM  
QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDKSLEKYII EELNVRKVLTSTDKNKYGI RLRAEPDHV  
LGKRLKGAFKAVMTSIKQLSSEEELEQFKTGTVVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDV  
TPDQSMVDEGMAREVINRIQKLRKKCNLVPTDEITVYKAKSEGTYLNSVIESHTEFITTIIKAPLKPYVPSPD  
KVLIQEKTQLKGSELEITLTRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLSVVTISIFGVK  
NTELAVFHDETEIQNQTDLLSLSGKTLCTVAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTGTGTLLENPL  
GQNGLTHQGLLYEAAKVFLGRSRKLKFLNETQTQBITEDIPVKTLNMKTVYVSVLPTTADP



**FIGURE 400**

GAAAAGCGCGCGGGGATTCCAGGAGTCGTGGTTTCTTGCCCTTGATGTACTGGAGCAATCAGATCACACGGCGG  
CTTGGAGAGTGAGTGCAAGGTTTT**TATG**AGTGGAAATTAGCCCTCAGCAGATGGGGGAGCCAGAAGGCAGTTGGAGT  
GGGAAGAACCAGGGACCATGGGCGCCTCCAGGCTCTATACCCTGGTGCTGGTCCTGCAGCCTCAGCGAGTTCTC  
CTGGGCATGAAAAGCGAGGCTTCGGGGCCGGCCGGTGGAAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACC  
ATCGAGGATGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAG  
ATCGTGTTTGAAGTTCGTGGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGACC  
CCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCCAGCTGGATCAGATCCCCTTCAAGGACATGTGGCCCGAC  
GACAGCTACTGGTTTCCACTCCTGCTTCAGAAGAAGAAATCCACGGGTACTTCAAGTTCAGGGTCAGGACACC  
ATCCTGGACTACACACTCCGCGAGGTGGACACGGTCT**TAG**CGGGAGCCAGGGCAGCCCTGGGCAGGAGACGTGG  
CTGCTGAACAGCTGCAAAACCATCTTACCTGGGGGCATTGAGTGGCGCAGAGCCGGGTTTCATCTGGAATTAAC  
GGATGGAAGGGAAAATAAAGCTATCTAGCGGTGAAAAA

**FIGURE 401**

MSGISPQQMGEPEGSWSGKNPGTMGASRLYTLVLVLQPQRVLLGMKKRGFGAGRWNFGGKVOEGETIEDGARRE  
LQEESGLTVDALHKVGQIVFEFVGPELMDVHVFC TDSIQGTPVESDEMPCWFQLDQIPFKDMWPDDSYWFPLL  
LQKKKFHGYFKFQGQDTIILDYTLREVDTV

## FIGURE 402

GGCACGAGGCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGGAGCGAGCTTAGGACCGCCTGCCGGGGGCAACCCCG  
AACCAAGCTTTAGCGCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCAATCCCTCCTCTGTGTTGCCATGSGAATTCAA  
GGCCTGGCCAAACTAATTGCTGATGTGGCCCCAGTGCCATCCGGGAGAAATGACATCAAGAGCTACTTTGGCCGT  
AAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCTCGATTGCTGTTCCGCAGGGTGGGGATGTGCTGCAG  
AATGAGGAGGGTGAGACCACCAAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAGAACCGCATC  
AAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGCCAAACGCGAGTGAGCGGCGG  
GCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAATAATTCACTAAGCGG  
CTGGTGAAGGTCACTAAGCAGCACAAATGATGAGTGCAAAACATCTGCTGAGCCCTCATGGGCATCCCTTATCTTGAT  
GCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCTACCGAGGAC  
ATGGACTGCTCACCCTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAGCTGCCAATC  
CAGGAATTCACCTGAGCCGATTCTGCAGGAGCTGGGCCGTAACAGGAACAGTTTGTGGATCTGTGCATCCTG  
CTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAGAAGCACAA  
AGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCACAAGGAGGCT  
CACCAGCTCTTTTGGAACTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGACCAATGAAGAA  
GAGCTGATCAAGTTCATGTGTGGTGAAGAAGCAGTTCTCTGAGGAGCGAATCCGAGTGGGGTCAAGAGGCTGAGT  
AAGAGCCGCGCAAGGCAGCACCCAGGGCCGCTGGATGATTCTTCAAGGTGACCGGCTCACTCTCTTCAGCTAAG  
CGCAAGGAGCCAGAACCCAAAGGGATCCACTAAGAAGAAGGCAAGACTGGGGCAGCAGGGAAAGTTTAAAAAGGGGA  
AAATAAATGTGTTTCCCATTTATACCTCCTTACCCCAAGAAATTTGCGGCTTGTGACCTTAAAGAGCTACAGCT  
AGAGAAACCTTACGGGGTGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTTCAGTAGTGCTAGTCCCT  
TTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTGTAGCTCAGGAAAAATATGTCAGGCT  
CAAACCACTTCTCAGGCAGTTTAAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAACAAGTTTTG  
GAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTCTCTGGCTGGCCAACTGGTGGCC  
AGTGGGAGGTGATGTTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGAGAGAGCCAC  
CAGGAAGGCGCATCTTAGCAGATGGGAGGAAGTCTGAGAGAAGATGGGCAGAAAAGCTGGAGCCCTGGAGTTGG  
CTGTGCTGTGTTTGTGACTGATTACTGGCTGTGCTTGGGTGGGCAGAAACTCGAACTTGCTATGTAATTTGTG  
TCTAGTTATTAGAGAGGATAAGATGGTGTGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAATAAGACACT  
GGTTTTATGCGCTGTTTTGTGTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCATAAAGTAAAAAAGAAAAA  
AAAAAA

**FIGURE 403**

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM  
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI  
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQQFVD  
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRDPNKYPVPENWLHKEAHQLFLEPEVLDPESELKWSE  
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK  
FKRGK

AGTCTCGCATTTTCGGGTGTAGAGGGAGCAGGGGCTCGCGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG  
GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTGGCATGAGAGCAGCCGCTG  
AGGGGACGCAGCCTGCCTAGCGGCCCAAGAGGCTGTGCGTGGCGAGCAGTACGTGACGGGAGCGCGGGCTT  
TGAAGAGCGGCTGAACGTGAGGCCACCGCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCTGCCCGTT  
GCAACCCGAACCAAGCTTTAGCCGCCGAGGCGCGTGTCCCAAGGCCAGTCAATCCCTCCTCTGTGTTGGC**ATG**

GGAATTCAAGCGCTGGCCAACTAATTGCTGATGTGGCCCCAGTGCCATCCGGGAGAATGACATCAAGAGTAC  
TTTGGCCGTAAAGTGGCCATTGATGCCTCTATGAGCATTATCAGTTCCTGATTGCTGTTCCGACAGGGTGGGGAT  
GTGCTGCAGAAATGAGGAGGGTGAGACCACAGCCACTGATGGGCATGTTCTACCGCACCAATTCGCATGATGGAG  
AACGGCATCAAGCCCGTGTATGCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT  
GAGCGGCGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC  
ACTAAGCGGCTGTGTAAGTCACTAAGCAGCACAAATGATGAGTGCAAAATCTGTGAGCCCTCATGGGCATCCCT  
TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAACTCTATGCTGCGGCT  
ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCCACACCTGACTGCCAGTGAAGCCAAAAAG  
CTGCCAATCCAGGAATTCACCTGAGCCGGATTCTGCAGGAGCTGGGCTGAACAGGAACAGTTTGTGGATCTG  
TGATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAG  
AAGCACAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTTGGCTCCAC  
AAGGAGGCTCACCAGCTCTCTTGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA  
AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAGAGCAGTTCTCTGAGGAGCGAATCCGAGTGGGGTCAAG  
AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT  
TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGATCCACTAAGAAGAAGGCAAGACTGGGGCAGCAGGGAAGTTT  
AAAAGGGGAAAA**TAA**ATGTGTTTCCCATTTATACCTCCTTACCCCAAGAATATTTGCCGCTCTTGATACCCTTAAGA  
GCTACAGCTAGAGAAACCTTACGGGGTGGAGAGGAGATTCTAAGGCTTTTCTAGCGTGACCCCTTTTCAGTAGTG  
CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTAGCTCAGGAAAATA  
TGTGAGGCTCAAACCACTTCTCAGGCAGTTTAAATGGACACTAAGTCCATTGTTACATGAAGTGATAGATAGCAA  
CAAGTTTTTGAGAAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCTTGCTGGCCAA  
CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCCTTGACCCACCTTGAGA  
GAGAGCCACAGGAAAGGCGCATCTTAGCAGATGGGAGGAAGTGTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC  
TGGAGTTGGCTGTGCTGTGTTTGTGACTGATTACTGGCTGTGCTTGGGTGGGCAGAACTCGAACTTGCTATG  
TAATTTGTGCTAGTTATTAGAGGAGTAAGATGGTGTGATGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAA  
TAAGACACTGGTTTTATGCCTGTTTTTGTTTTAAAGTTATAGAAGAAAAAGTCAATAAAATTTCTAAAAGTAA  
AAAAAAAAAAAAA

**FIGURE 405**

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM  
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI  
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQFVD  
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRDPNKYPVPENWLHKEAHQLFLEPEVLDPEVELKWSE  
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK  
FKRGK

## FIGURE 406

GCACGCCAGCGAGTTCCAGAGGCCAGTGGAAGCTGCGGCGGCGGTGTCTCGCGTTCGGCGGATTTCCTTC  
GCTCCGGCTCGGCTTAGGTCTACGTCCCCAGCTCCAGCCGCGGCTCGGACTCGGTCTCTGACCCCCAACTCGGT  
CCCCTAGTCCGGCCCCGGCTCCGGGCCCCCAACCCTCGCTCCGGCCCCGGCCCCCACCAGCCCTGCCG  
CCGGCCCCAGGCCCGGCGCGGCCGCTCCGCTTGAGCCGCGCGCCCCAGCCCCCTGCACCCCTCGG  
CCCCTCGCTTCTCTTCCGGCGGCCCCCGGCTTCCGCGCGCGCCCCGCCACCAATCCTTGTGCTACCATG

TCCGTGGAGCTCGAGGAGGCCCTGCCAGTGACGACCGCCGAGGGAATGGCCAAGAAGTGACCAAGGCTGGCGGC  
TCGGCGGCGTTGTCCCCATCTAAGAAGAGGAAGAATAGCAAGAAGAAGAACAGCCGGGCAAGTACAGCCAGCTG  
GTGGTGAGACCATCCGTAGGCTGGGCGAGCGCAACGGCTCGTCGTGGCCAAGATCTACACCGAGGCCAAGAAG  
GTTCCGTGGTTCGACCAGCAGAATGGGCGCACCTACCTCAAGTACTCGATCAAGGCGCTGGTGAGAACGACACG  
CTTCTGCAGGTGAAGGGACCGGCGCCAAACGGTTCTTCAAGCTCAACCGCAAGAAGCTGGAGGGCGGCGGGAG  
CGGCGCGAGCCCCGGCGGCCGCCACCGCCCCGGCCCCCACC CGCGCACAAAGCGAAGAAGGCAGCCCCGGGCGG  
GCCGGCTCCCGCGCGCGGACAAGAAGCCGCCAGGGGCCAGAAGCCGGAGCAGCGCTCGCACAAAGAAGGGCGCT  
GGCGCCAAGAAGGACAAGGCGGCAAGGCCAAGAAGACGGCGGCCGCGGGGGCAAGAAGGTGAAGAAGGGGGCC  
AAGCCCAGCGTCCCCAAGTGCCCAAGGGCGCGAAGTGAGCGTGTGCGCCGGTCAGAGCGGCGGCGTGGGCTTT  
TCGGTGTTTTTTGTTTTCTACCCAAGTGACGTAGATTTTGTACGGCTCACGCCGGCCGGGGCCGCGAGGCTGG  
TCTGAGCCTCAGGGAGGGGCCCGGGTCTCTCAGTCTTTCCCTCCCCAACGATGTAGCGTTTTTCGTGTGTTT  
GCTTTAGGTTTTTGAACAGCCCGGCGACGCTCTATTGGCTCTCGGCTTGCGAACGGCCGCTGTCATGGTTA  
CTGGCCCCTAGGCGCGATGGCCGAGGCCGCGCTGCCACCGGGCGGGTTCGTGGTTGGCCGGGCCAGGCGC  
GCGGGGACGCGAGGCCGCGCATCCTTCCAGCTCCCCACCCTCCTTGCTTTGGGTGCGCGACAACAATCGC  
TCCGGGCTCAGGGCTGCGCGGCTCTTCCCTTCATTCCATGGGCTTTTTTTGGGCACAATAAAGCGTTTTAACTT  
TTC

**FIGURE 407**

MSVELEEALPVTTAEGMAKKVTKAGGSAALSPSKRRKNSKKKNQPGKYSQLVVETIRRLGERNGSSLAKIYTEAK  
KVPWFDDQNGRITYLKYSIKALVQNDTLLQVKGTGANGSFKLNRRKKLEGGGERRGAPAAAATAPAPTAHKAKKAAPG  
AAGSRRADKKPARGQKPEQRSHKKGAGAKDKGGKAKKTAAGGKKVKKAAKPSVPKVPKGRK



ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAATGGAGAAGTATTAACCAACCATTTCTAGTGG  
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAAACCCAAAGGTAAGACACTCAAGGACA  
GACATTTTTGGCAGAGCATAGATGAAATGGCAAGTTCCTTGGCTTTCTCTTCTGCTCAACTTTCATGTCTCCCTC  
TTCTTGGTCCAGCTGCTCACTCCTTGTCTCAGCTCAGTTTTCTGTGCTTGGACCCCTCTGGGCCATCTCTGGCCATG  
GTGGGTGAAGAGCTGATCTGCCTCTGACCTGTTCGCCAGCATGAGTCGACAGACCATGGAGCTGAGTGTGGGTG  
AGTTCCAGCCTAAGCGAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGGAAAGACAGGCAGAGTGCACCATAT  
CGAGGGAGAAGTTTCGATTCTCGGGGATGGCACTCTGAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC  
TCTGACAGTGGAAAGTACTTGTGTATTTCGAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT  
GCAGCATTTGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC  
ACTGGCTGGTACCCCAACCCCAAAATAAGTGGAGCGACACCAAGGGAGAGAATCCCGGCTGTGGAAGCACCT  
GTGGTTGCAGATGGAGTGGGCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA  
TCCTGCATCATCAGAAATTCCTCCTCGCCTGGAAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG  
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCTTGCCTATCTCGTTGCTGCTTCGCGAGGAGCCAGTTAC  
TTCTTGGGAGACAACAGAAGGAAAAAATGTCTGTCTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG  
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAGCTCCAGGAGGAAGCTCAAGTGGAGGAAAAATCCAG  
TACATGGCTCTGGAGAGAGTCTTTGGCCTATCATGAATGGAAAAATGGCCCTCTTCAAACTTGGCGATGTGATT  
CTGGATCCAGACACGGCAACGCCATCCTCCTTGTCTTCTGAGGACAGAGGAGTGTGCAGCTGTCTGAAGAGCCG  
CGGGATCTGCCAGACAACCTTGAGAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAAACTTCACATCAGG  
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAGAGTGGCATATTGGGGTATGTAGTAAGAAGCTGGAGAGG  
AAAAAGGTTGGGTCAAATGACACCGGAGAACGGATACTGGACTATGGGCTGACTGATGGGAATAAGTATCGG  
GCTCTCACTGAGCCAGAACCAACCTGAAACTTCTGAGCCTCCTAGGAAAGTGGGATCTTCTTGGACTATGAG  
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATACACCTTTCCGCGAGCCCTCTTCTCTGAG  
CCTCTATATCTGTTTTCAGAATTTTGACCTTGGAGGCCACTGCCCTGACCATTGTGCCAATACCAAAAGAAATGA  
GAGAGTTCGCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA  
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCCTGGAGCTGAGGTCTCCCCCTCTGCA  
ACAACCAATCAGAACCAATAAGCTACAGGCAGCAGCTGAAGCACTTTACTGTAATTTATTTCCATTATTCATATGA  
CAGTGTTTTTGAGTTTCGTACCACTTATTGTCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT  
AACTTTACAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA  
TTTTAAATGTTCTTAGTGCTGTGTATAAGCTTTGGTGGATGTCACTCCTTTAATCTCACAACACCCCTGTCTGGG  
TAGTCATATTTTGAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACCTACATAATTCATACAGATTTTGT  
GCAGTTGGGAGATGTTACGCTTAGTCCCTGGCTAATTGCCTGTCTTTTCCAGCCTGATTTTTTCCACAGG  
AAGAGCCCATGTAGCCCTGAGGTTTCTTCCAGGACAGCTGCAGGGTAGAGATCATTTTAAAGTGTCTGTGGA  
GTTGACATCCCTATTGACTCTTTCCAGCTGATATCAGAGACTTAGCCAGCAGCTCCTTGGATTAGCTCTGCAG  
AGTGTCTTGGTTGAGAGATAACCTCATATGATACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACT  
GATAAATCATGGGACAGATATGTCCCAACCAACAATGTGATAAGTATTGTGACGACAGCCACCTTCTT  
TCAATCAAGGTTTCCAGGACAGACAAATACCTTAGAGATTCTGTGATATAGGAAATTTGGATCAAGGAAGCT  
AAAAGAAATACAGGAGTGTTTTAAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCTCTGGTA  
TTGGTGGATGTTAAACCCATATCCCTTCAACTGCTGCTGTCTAGGGAAGACTCTCTCATATTATCATCACTATT  
ATTGCTCACCACGTATCCCCCTACTTGGCAAGTGGTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT  
GAAAAA

**FIGURE 409**

MKMASSLAFLLLNHFVSLFLVQLLTPCSQAQFSVLGPGSIPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLICYFQDGDYFEKALVELKVAALGSDL  
HIEVKGIEDGGIHLERSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS  
LLGLEKTASISIADPFFRSAPFWIAALAGTLPISLLLLAGASYFLWRQQEKIALSRETEREREMKEMGYAATEQ  
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALEKPADVILDPDTANAILLVSEDQRSVQRAEEPRLPDNP  
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT  
NLKLPPEPRKVGIFLDYETGEISFYNATDGSIIYTFPHASFSEPLYPVFRILTEPTALTICIPKEVESSPD  
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

## FIGURE 410

CGCACTCCCTGCTGGGTGAGCAGCACTGTAAAGATGAAGCTGGCTAACTGGTACTGGCTGAGCTCAGCTGTTCTT  
GCCACTTACGGTTTTTTTGGTTGTGGCAAAACAATGAAACAGAGGAAATTAAGATGAAAGAGCAAAGGATGCTGCG  
CCAGTGAGACTAGAAAGCAGAGGGAAATGCGAAGAGGCAGGGGAGTGCCCTACCAGGTAAGCCTGCCCCCTTG  
ACTATTGAGCTCCCGAAGCAATTGAGCAGGATCGAGGAGGTGTTCAAAGAAGTCCAAACCTCAAGGAAATCGTA  
AATAGTCTAAAGAAATCTTGCCAAGACTGCAAGCTGCAGGCTGATGACAAACGGAGAGCCAGGCAGAAACGGACTG  
TTGTTACCCAGTACAGGAGCCCCGGGAGAGGTTGGTGATAACAGAGTTAGAGAATTAGAGAGTGAGGTTAAACAAG  
CTGTCCCTCTGAGCTAAAGAATGCCAAAGAGGAGATCAATGTACTTCATGGTCGCCTGGAGAAGCTGAATCTTGTA  
AATATGAACAACATAGAAAATTATGTTGACAGCAAAGTGGCAAACTAACATTTGTTGTCATAGTTTGGATGGC  
AAATGTTCAAAGTGTCCAGCCAAGAACAATAACAGTCACGTCCAGTTCAACATCTAATATATAAAGATTGCTCT  
GACTACTACGCAATAGGCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCTTTGAA  
GTTTACTGTGACATGGAGACCATGGGGGAGGCTGGACAGTGTGACAGGCACGTCTCGATGGGAGCACCAACTTC  
ACCAGAACATGGCAAGACTACAAAGCAGGCTTTGAAACCTCAGAGGGAATTTTGGCTGGGGAACGATAAAATT  
CATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTAAATGGTGTGCAACTATATGCC  
TTGTATGATCAGTTTTATGTGGCTAATGAGTTTCTCAATATATCGTTTACACGTTGGTAACATATAATGGCAGCT  
GGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTACCACCTCCAGATAAAGACAATGAT  
CGATATCCTTCTGGGAAGTGTGGGCTGTACTACAGTTACAGCTGGTGGTTTGATGCATGCTTTCTGCAAACTTA  
AATGGCAAATATTATCACCAAAATACAGAGGTGTCCTGTAATGGGATTTTCTGGGGTACCTGGCCTGGTGAAGT  
GAGGCACACCCCTGGTGGCTACAAGTCTCTCTTCAAAGAGGCTAAGATGATGATCAGACCAAGCACTTTAAGCCA  
TAATATCAGTCTGTTCATTCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGAATATG  
CCTGTTTCATATTTTTCATAGCTAAAAAATGTTTGACATCCTTTGAGATATTTTATTACTAAAATCTGCC

**FIGURE 411**

MKLANWYWLSSAVLATYGFLLVANNETEEIKDERAKDVCPVRLESRGKCEEAGECPYQVSLPPLTIQLPKQFSRI  
EEVFKEVQNLKEIVNSLKKSCQDCKLQADDNGDPGRNGLLLPSTGAPGEVGDNRVRELESEVNKLSSELKNAKEE  
INV LHGRLEKLNLVNMNNIENYVDSKVANLTFVVNSLDGKCSKCPSQEQIQSRPVQHLLIYKDCSDYYAIGKRSSE  
TYRVTPDPKNSSFEVYCDMETMGGGWITVLQARLDGSTNFTRTWQDYKAGFGNLRREFWLGNDKIHLLTKSKEMIL  
RIDLEDFNGVELYALYDQFYVANEFLLKYRLHVGNYNGTAGDALRFNKHYNHDLKFFTTTPDKDNDRYPSGNCGLY  
SSGWWFDACLSANLNGKYYHQKYRGVRNGIFWGTWPGVSEAHPPGGYKSSFKEAKMMIRPKHKFP

**FIGURE 412**

TCCCAGCTGCGCGTCGCGAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCGGTGGGAGCC  
AGGCCGGGACGCGTGCACCAATGCCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT  
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGGCCTTGGGAAACAACCTT  
TTATGAATACTACGTCGATGACCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG  
CATGACGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAGTGACCTTCTCATGCTGATTTCAGACGGG  
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCCTCTGCCTTGCCTCTCTTC  
CCAAATCATCACCGCCATGGGCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCTGCGTCAAGCAGTG  
GGAGAGGGCAGTGCCCGGTGCCCTGGTGTCTCCAGCTGCCCTCCTGCTTCGGGGCTGGGCCAGGGCCTTGIGTA  
GGCCATGTTCTCGGGCAGCTGCCCCGGGCCGAGCTGGGCACCTCCAGCGGCCCTGGCGGTGGCTCCTGCATAG  
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

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**FIGURE 413**

MPYLLISTQIRMEVGPTMVGDEQSDPELMQHLGASKRRALGNNFYEYYVDDPPRIVLDKLERRGFRVLSMTGVGQ  
TLVWCLHKE

**FIGURE 414**

GCGTCTGCCAGGAGCTACGGCCGGAAG**ATGC**CGGCGGCCGCAGAGTTGTCGCTACTGGAGAAGTCCCTGGGACTG  
AGTAAGGGGAATAAATACAGTGCTCAGGGCGAGCGACAGATTCCAGTTCTTCAGACAAACAATGGTCCAAGICTA  
ACAGGATTGACTACTATAGCAGCTCATCTAGTCAAGCAAGCCAACAAGAATATTTGCTGGGGAGTACTGCAGAA  
GAAAAAGCAATCGTTCAGCAGTGGTTAGAATACAGGGTCACTCAAGTAGATGGGCACCTCCAGTAAAAATGACATC  
CACACACTGTTGAAGGATCTTAATTCATATCTTGAAGATAAAGICTACCTTACAGGGGTATAACTTTACATTAGCA  
GATATACTATTGTACTATGGACTTCATCGCTTTATAGTTGACCTGACAGTTCAAGAAAAGGAGAAATATCTTAAT  
GTGCTCGCTGGTTTTGTCACAATTCAGCATTATCCAGGCATCAGGCAACATCTGCTAGTGTGTCTTCATCAAG  
AACAGACTATATACTAATTCCCACT**TAGA**AGCTGTCCATGCCATACAGAAGATCTATTAAGAAGTGTTTTAAATGGA  
AAATGTACTCTAGACCACAGGACTAATGTAAATTAATATACAGTCATTCAATTATTTGTTGAAGTTGATAGAATTT  
TTGAAGTGTAACCTTGTGTCTGAATGTTTTATTGTCTTTAGCTGAAGTTTTGCAATTTTATGTCAAATTC  
ATTGCTATTAACAAGTTGAGATCCAGTTATAAATTAACCTTGTTTTAGTAGATGACATTTATTTCAATAAAAG  
TTGCAAAATCGGGCTTAATCTTAAATTTGGTGGTCATTTCAATGGTTGACATATTTGGCTATTTATTAACTCTCT  
TTCATATTCTAAAATTCATTTTCCCTTATGGATTTTATGGTAGTTTGTAAAGAACGATAAATTGTGCCAAGG  
AAGCCAAAAGGGAAGACAGATGGATTTGTTTTAAATGTTTATGTAGCTAGTAAATGTGGGAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAA

**FIGURE 415**

MAAAEELSLEKSLGLSKGNKYSAQGERQIPVLQTNNGPSLTGLTTIAAHLVKQANKEYLLGSTAEKAIVQQWL  
EYRVTQVDGHSSKNDIHLLKDLNSYLEDKVYLTGYNFTLADILLYYGLHRFIVDLTVQEKEYLNVSRWPFCHIQ  
HYPGIRQHLSSVVFIGNRLYNH



## FIGURE 416

CCGGGACTTTGACGGCAGCGCGCGGGGCGGAGCGGGATCGAGCCCTCGCCGAGGCCCTGCCCCATGGGCC  
GCGCCGCGCGCGCGCTGTACCCGGGCGCGCGGCCGTGAGCGT**CATG**CCCTTGGCCGGGGCCCTGCGGGC  
GGCCCATGGCGCGCGCGCTGAGAGGCCCTGTCTGGGGCGCGCGCGTGGCGCTGCTGACTCCTCGCAGATCGTC  
ATCATCTCCGCGCGCAGGACGCCAGCGCCCCGCGGCTCCCAACCGCCCGCGGGCGCCCGCGCGGCCCTGC  
GACCTTGACCTGCTGCTCTTCGCCACACCGCAGGCGCCCGGCCACACCCAGTGGCCCGCGGCCCGCGCTCGG  
CGCCCGCGGTGAAGCGGAGGCTGGACCTGGAACCTGACCATCAGTACCTGGCCGAGAGCAGTGGGCCAGCTCGG  
GGCAGAGGCCCGCATCCAGAAAAGTGTGAATCCCCGGGGAGAAGTCACGTATGAGACCTCACTGAATCTG  
ACCACCAAGCGTTCTTGGAGTGTGTGAGCCACTCGGCTGACGGTGTCTGCTGACCTGAACCTGGGCTGCCGAGGTG  
CTGAAGGTGCAGAACGCGCGCATCTATGACATCACCAACGTCTTGAAGGCATCCAGCTCATTGCCAAGAAGTCC  
AAGAACCACATCCAGTGGCTGGCGAGCCACACCACAGTGGGCGTGGCGGACGGCTTGAAGGGTTGACCCAGGAC  
CTCCGACAGCTGCAGGAGAGCGAGCAGCAGCTGGACCACCTGATGAATATCTGTACTACGCAGCTGCGCTGCTC  
TCCGAGGACACTGACAGCCAGCGCCTGGGCTACGTGACGTGTGAGGACCTTCGTAGCATTCGAGACCTGCAGAG  
CAGATGGTTATGGTGATCAAAGCCCCCTCTGAGACCCAGCTCCAAGCCGTGGACTCTTCGGAGAACCTTCAGATC  
TCCCTTAAGAGCAAACAAGGCCGATCGATGTTTTCTGTGCCCTGAGGAGACCGTAGGTGGGATCAGCCCTGGG  
AAGACCCATCCCAGGAGGTCACTTCTGAGGAGGAGAACAGGGCCACTGACTCTGCCACCATAGTGTCACACCA  
CCATCATCTCCCCCTCATCCCTACCCACAGATCCCAAGCCAGTCTCTACTCAGCCTGGAGCAAGAACCGTGTG  
TCCCGATGGGCAGCTGCGGGCTCCCGTGGACGAGGACCGCTGTCCCGCTGGTGGCGGCCGACTCGCTCCTG  
GAGCATGTGCGGGAGGACTTCTCCGGCTCCTCCTGAGGAGTTCATCAGCCTTTCCCCACCCACGAGGCCCTC  
GACTACCACTTCGGCTCGAGGAGGGCGAGGGCATCAGAGACCTCTTCACTGTGACTTTGGGGACCTCACCCCC  
CTGGATTTCT**TCAG**CAGGGCTTGGAGGGACAGGGTTTCCAGAGTAGCTACCTTTGTCTCTCAGCCCTGGAGCCCC  
CTGTCCCTGGCGCTCTCCAGCCTGTTTGGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCT  
AGCTCTGGGGTCTGGCTACCGCTAGGAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCA  
TGCAGCTACACCCACAGTGTGTACCGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGA  
AGGTGAACATACACCTCTGTGTGTGCACTGCAGACACGCCCAAGTGTGCCACATGTGTGTGCATGAGTCCATCT  
CTGCGCGTGGGGGGCTCTAACTGCACTTTTCGGCCCTTTTGCTCGTGGGTCCCAAGGCCACGGCAGTGCCT  
GCTCCAGAATCTGGTGTCTGACCAAGGCCAGGTGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGC  
ACTCTGTCTTAAAGGTTTTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCCTTTGGTGAG  
CCTGGGAATCAGCAAAAGGGGAGGAGGGGTGTGGGTTGATACCCCAACTCCCTCTACCTTTGAGCAAGGGCAG  
GGGTCCCTGAGCTGTTCTTCTGCCCACTACTGAAGGAAGTGAAGGCTGGGTGATTTATTTATTGGGAAGTGAGG  
GAGGGAGACAGACTGACTGACAGCCATGGTGTCAGATGGTGGGGTGGGCCCTCCAGGGGCCAGTTCAGG  
CCAGCTGCCCCCAGGATGGATATGAGATGGGAGAGGTGAGTGGGGACCTTCAGTGTGGGCGAGGAGGGT  
GGTGAAGGCCCTCCCCAGCCAGACCTGTGGTCCCTCTGCAGTGTCTGAAGCGCTGCCTCCCACTGTCTG  
CCCCCTCCAATCTGCACTTTGATTTGCTTCCCTAACAGACTGTGTTCCCTCCTGCTTTGGTTTTAATAAATATT  
TTGATGACGTT

**FIGURE 417**

MALAGAPAGGPCAPALEALLGAGALRLDSSQIVIIISAAQDASAPPAPTGPAAAPAGPCDPDLLLFATPQAPRPT  
PSAPRPALGRPPVKRRLDLETDHQYLAESSGPARGRGRHPCKGVKSPGEKSRYEISLNLTTKRFLLELLSHSADGV  
VDLNWAAEVLKVQKRRIYDITNVLEGIQLIAKKSKNHIQWLGSHTTVGVGGRLEGLTQDLRQLQESEQQLDHLMN  
ICTTQLRLLEDIDSQRLAYVTCQDLRSIADPAEQMVMIKAPPETQLQAVDSSNFQISLKSQGFIDVFLCPE  
ETVGGISPGKTPSQEVTSEENRATDSATIVSPPSPSSLTTPSQSLLSLEQEPLLSRMGSLRAPVDEDRLS  
PLVAADSLLEHVREDFSGLLPEEFISLSPHEALDYHFGLEEGERDLDFDCDFGDLTLPDF

**FIGURE 418**

CCTTGCTATAGAAGACCTGGGACAGAGGACTGCTGTCTGCCCTCTCTGGTCACCCCTGCCTAGCTAGAGGATCTGT  
GACCCCAAGCCATGAGGACCCCTCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAAGGCTGAGCCACT  
CCAGGCAAGAGCTGATGAGGTGCTGCAGCCCCGGAGCAGATTGCAGCGGACATCCCAGAAGTGGTTGTTTCCCT  
TGCA TGGGACGAAAGCTTGCTCCAAAGCATCCAGGCTCAAGGAAAAACATGGACTGCTATTGCAGAATACCAGC  
GTGCATTGCAGGAGAACGTGCTATGGAACCTGCATCTACCAGGGAAGACTCTGGGCATTCTGCTGCTGAGCTTG  
CAGAAAAAGAAAAATGAGCTCAAAATTTGCTTTGAGAGCTACAGGGAATTGCTATTACTCCTGTACCTTCTGCTC  
AATTCCTTTCTCATCTCAAATAAATGCCTTGTAC

**FIGURE 419**

MRTLAILAAILLVALQAQAEPLQARADEVAAAEQIAADIPVVVSLAWDESLAPKHPGSRKNMDCYCRIPACIA  
GERRYGTICIYQGRLWAFCC

AGCGGGTGC GGGGCGGGACCGGCCCGGCCTATATATTGGGTGGCGCCGGCCAGCTGAGCCGAGCGGTAGCTG  
GTC TGCGCAGGTTTTATACACCTGAAAGAAGAGAGATGTC AAGACGAAGTAGCCGTTTACAAGCTAAGCAGCAGCC  
CCAGCCACGAGCAGCGGAATCCCCCAAGAAGCCAGATAATCCAGGCCAAGAAGAGGAAAACTACCAGGATGT  
CAAAAAAGAAGAGAGGAGGTACCAAGAAACATCAGTATGAAATTAGGAATTGTTGGCCACCTGTATTATCTGG  
GGGGATCAGTCCCTTGCAATTATCATTTGAAACACCTCAAAAAGAAATAGGAACAAGTGATTCTCCAGATTTACAAA  
TTACAGATTTAAAAATCTTTTTATTAATCCTTCACCTTTGCCTGATTTAAGCTGGGGATGTTCAAAAGAAGTCTCG  
GCTAAACATGTTAAAAAGGAGAGCAGATATGTTCAATGACAAACATTTGAAGTCTGCACTTCGAACTTGGAAAC  
ACAGATGAGGTCCATCTCTAGACTGGCTTTTAGAGGTATGTGAAGTATACACACTTCATAGGGAACATTTTA  
TCTTGACAAAGACTTTTTTGATAGATTTATGTTGACACAAAAGGATATAAATAAAAATATGCTTCAACTCATTGG  
AATTACCTCATTTATTCATGCTTCCAACCTTGAGGAAATCTATGCTCCTAACTCCAAGAGTTTGCTTACGTCAC  
TGATGTTGCTTGCACTGAAGAGGATATCTTAAGGATGGAACCTCATTATATTAAGGCTTTAAAAAGGGAACCTTTG  
TCCTGTAAACAATCATCTCCTGGCTAAATCTCTTTCTCCAAGTTGATGCTCTTAAAGATGCTCCTAAAGTCTCTCT  
ACCTCAGTATTTCTCAGGAACATTCATTCAAATAGCTCAGCTTTTAGATCTGTGATTTCTAGCCATTGATTCATT  
AGAGTTCAGTACAGAATACTGACTGCTGCTGCCCTTGTCCTATTTACCTCCATTGAAGTGGTTAAGAAAGCCCTC  
AGGTTTGGAGTGGGACAGTATTCAGAAATGTGTAGATTGGATGGTACCTTTTGTCAATGTAGTAAAAAGTACTAG  
TCCAGTGAAGCTGAAGACTTTTAAGAAGATTCCATGGAAAGACAGACATAATATCCAGACACATACAAACATATT  
GGCTATGCTGGAGGAAGTAAATACATAAACACCTTCAGAAAAGGGGACAGTTGTCCACAGTGTGCAATGGAGG  
CATTATGACACCACCGAAGAGCACTGAAAAACCACCGAGAAAAACACTAAGAAGATAACTAAGCAACAAGTTGG  
AATTCCACAAGATTGGGTAGAATCGTATCACTGAACACTAAAGTTTTACAGAAAGTAGTGCTGTGATTGATTGG  
CCCTAGCCAATTCACAAGTTACACTGCCATTCTGATTTAAAACTTACAATTTGGCACTAAAGAAATACATTTAATT  
ATTTCTATGTTAGCTGTTAAAGAAACAGCAGGACTTGTTTACAAGATGCTTTCATTCCTCAAGGTTACTGGATA  
GAAGCCAACCAAGCTCTATCCATAGCAATGTTTTCTTTAATCCAGTGTTACTGTGTTTTATCTTGATAAACTA  
GGAATTTTGTCACTGGAGTTTTGGACTGGATAAGTGCTACCTTAAAGGGTATACTAAGTGATACAGTACTTTGAA  
TCTAGTTGTTAGATTTCAAAATTCCTACACTCTTGACTAGTGCAATTTGGTCTTGAAAATTAAATTTAAACTT  
GTTTACAAGGTTTAGTTTGTGTAATAAGGTGACTAATTTATCTATAGCTGCTATAGCAAGCTATTATAAACTTG  
AATTTCTACAATGGTGAAATTTAATGTTTTTAAACTAGTTTATTTGCCCTGGCATAACACATTTTAACTAA  
TAAGGCTTAGATGAACATGGTGTTCAACCTGTGCTTAAACAGTGGGAGTACCAAGAAATTAATAACAAGATAA  
ATGCTGTGGCTCCTTCTAAGTGGGCTTTCTTGACATGTAGGTGCTTGGTAATAACCTTTTGTATATCACAA  
TTTGGGTGAAAAACTTAAGTACCTTTCAAACCTATTATATGAGGAAGTCACTTTACTACTCTAAGATATCCCTA  
AGGAATTTTTTTTTTAAATTTAGTGACTAAGGCTTTATTTATGTTTGTGAAACTGTTAAGGCTCCTTTCTAAAT  
TCTCCTATTGTGAGATAAGGACAGTGCTCAAAGTGATAAAGCTTAACACTTGACCTAACTTCTATTTTCTTAAGG  
AAGAAGAGTATTAATATATACCTGACTCCTAGAAATCTATTTATTAATAAAGACATGAAAACCTTGCTGTACATA  
GGCTAGCTATTTTCTAAATATTTAAATAGCTTTTCTAAAAAAGAAATCCAGCCTCATAAAGTAGATTAGAAAAAC  
TAGATTGCTAGTTTATTTGTTATCAGATATGTGAATCTCTTCTCCCTTGAAGAAACTATACATTTATGTTTAC  
GGTATGAAGTCTTCTGTATGTTTGTTTTAAACTAATATTTGTTTCAGTATTTGTTCTGAAAAGAAAAACACCA  
TAATTTGTGATATGTTATATATATAAACTTAACCTTTTAACTACTGTTTATTTTATAGCCATTGTTTAAAAAATAA  
AAGTAAAAAAATTAACCTGCTTAAAGTAAAAAAGAAAAA

**FIGURE 421**

MSRRSSRLQAKQQPQPSQTESPQEAQIIQAKRRKITQDVKKRREEVTKKHQYEIRNCWPPVLSGGISPCIIETP  
HKEIGTSDFSRFTNYRFKNLFINPSPPLDLSWGCSKEVWLNMLKKESRYVHDKHFEVLHSDLEPQMRSIILLDWLL  
EVCEVYTLHRETFYLAQDFDPRFMLTQKDINKNMLQLIGITSLEFIASKLEEIYAPKLQEFAYVTDGACSEEDILR  
MELIILKALKWELCPVTIISWLNLFQVDALKDAPKVLLPQYSQETFIQIAQLLDLCILADSLEFYRILTAAA  
LCHFTSIEVVKKASGLEWDSISECDWMVPFVNVVKSTSPVKLKTFFKIPMEDRHNIQTHNTNYLAMLEEVNYINT  
FRKGGQLSPVCNGGIMTPPKSTEKPPGKH

## FIGURE 422

AAACTTCCCGCACGCGTTACAGGAGCCAGGTCCGGTATAAGCGCCAGCGGCTCGCCGCCGCTCAAGCTGTCCACA  
TCCCTGGCCTCAGCCCGCCACATCACCTGACCTGCTTACGCCCAGATTTTCTTCAATCACATCTGAATAAATCA  
CTTGAAAGAAAGCTTATAGCTTCATTGCACCATGTGTGGCATTGTGGCGCTGTTTGGCAGTGATGATTGCCCTTCT  
GTTTCAGTGTCTGAGTGCTATGAAGATTGCACACAGAGGTCAGATGCATTCGTTTTGAGAATGTCAATGGATAC  
ACCAACTGCTGCTTTGGATTTACCCGGTTGGCGGTAGTTGACCCGCTGTTTGGAAATGCAGCCCAATTCGAGTGAAG  
AAATATCCGTAATTGTGGCTCTGTTACAAATGGTGAAATCTACAACCATAGAAGATGCAACAGCATTTTGAATTT  
GAATACCAGACCAAAGTGGATGGTGAGATAATCCTTCATCTTTATGACAAAGGAGGAATTGAGCAAAACAATTTGT  
ATGTTGGATGGTGTGTTTGCAATTTGTTTTACTGGATACTGCCAATAAGAAAGTGTTCCTGGGTAGAGATACATAT  
GGAGTCAGACCTTTGTTTAAAGCAATGACAGAAGATGGATTTTGGCTGTATGTTTCAGAAGCTAAAGGCTCTGTT  
ACATTGAAGCACTCCGCGACTCCCTTTTTAAAGTGGAGCCTTTTCTCTGGACACTATGAAGTTTTGGATTTA  
AAGCCAAATGGCAAAGTTGCATCCGTGGAAATGGTTAAATATCATCACTGTCCGGATGAACCCCTGCACGCCCTC  
TATGACAAATGTGGAGAACTCTTCCAGGTTTTGAGATAGAACTGTGAAGAACAACCTCAGGATCCTTTTTAAT  
AATGCTGTAAAGAAACGTTTGATGACAGACAGAAGGATTGGCTGCCCTTTATCAGGGGGCTTGGACTCCAGCTTG  
GTTGCTGCCACTCTGTTGAAGCAGCTGAAAGAAGCCCAAGTACAGTATCCTCTCCAGACATTTGCAATTTGGCATG  
GAAGACAGCCCCGATTTACTGGCTGTAGAAAGGTGGCAGATCATATTTGGAAGTGAACATTATGAAGTCCTTTTT  
AACTCTGAGGAAGGCATTACAGGCTCTGGATGAAGTCATATTTCCCTGGAACTATATGACATTACAACAGTTCTGT  
GCTTCAGTAGGTATGTATTTAATTTCCAAGTATATTTCGAAGAACACAGATAGCGTGGTGATCTTCTCTGGAGAA  
GGATCAGATGAACCTACGCAGGGTTACATATATTTTACAAGGCTCCTTCTCTGAAAAGCCGAGGAGGAGAGT  
GAGAGGCTTCTGAGGGAACCTATTTGTTTGATGTTTCCGCGCAGATCGAACTACTGCTGCCATGGTCTTGAA  
CTGAGAGTCCCATTTCTAGATCATCGATTTTCTTCTTACTTGTCTCTGCCACCAGAAATGAGAATCCAAAG  
AATGGGATAGAAAAACATCTCTGAGAGAGACGTTTGAGGATTCGAATCTGATACCCAAAGAGATTCTCTGGCGA  
CCAAAAGAAGCCTTCAGTGATGGAATAAATTCAGTTAAGAATTCCTGGTTTAAAGATTTACAGGAATACGTTGAA  
CATCAGGTTGATGATGCAATGATGGCAAAATGCAGCCAGAAATTTCCCTTCAATACTCCTAAAACCAAAGAAGGA  
TATTACTACCGTCAAGTCTTTGAACGCCATTACCCAGGCCGGGCTGACTGGCTGAGCCATTACTGGATGCCCAAG  
TGGATCAATGCCACTGACCTTCTGCCCGCACGCTGACCCACTACAAGTCAGCTGCAAAAGCTTAGTGGTCTTT  
ATGCTGTAATGTGAAAGCAATATTTCTCTGTTGGATGGGGAGCTGGGTAGATAGGGGAACAATGAGAGTCA  
ACTCAGGCTAACTTGGGTGTGAAAAAATAAAAGTCCTAAATCT

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**FIGURE 423**

MCGI WALFGSDDCLSVQCLSAMKIAHRGPDAFRFENVNGYTNC CFGHRLAVVDPLFGMQPIRVKKYPYLWLCYN  
GEIYNHKKMQQHFEFEYQTKVDGEIILHLYDKGGIEQICMLDGVFAFVLDDTANKKVFLGRD TYGVRPLFKAMT  
EDGFLAVCSEAKGLVTLKHSATPFLKVEPFLPGHYEVLDLKPNGKVASVEMVKYHHCRDEPLHALYDNVEKLFPG  
FEIETVKNNLRILFNNAVKKRLMTDRRIGCLLSGGLDSSLVAATLLKQLKEAQVQYPLQTFAIGMEDSPDLLAAR  
KVADHIGSEHYEVLFNSEEGIALDEVIFSLETYDITTVRASVGMYLISKYIRKNTDSVVIFSGEGSDELTQGYI  
YFHKAPSPEKAEESERLLRELYLFDVLRADRTTAAHGLELRVPFLDHRFSSYYLSLPPEMRIPKNGIEKHLRE  
TFEDSNLIPKEILWRPKEAFSDGITSVKNSWFKILQEYVEHQVDDAMMANAAQKFFNTPKTKEGYYYRQVFERH  
YFGRADWL SHYWMPKW INATDPSARTLTHYKSAVKA



## FIGURE 424

GGCACGAGGCAGCAAAATGGCGCCAGAACTAGTGGCGGGCTGAGGACGCCGTACCCCTCGGAAGGCAGCCCTGCG  
GTCCCTTTGCGCCCGGTTCCCTCCCGGACATGGAGGACGTGGAGGCGCGCTTCGCCACCTCTTGCAGGCCATCC  
GCGACCTCACCAAGAACTGGGAGGTGGACGTGGCGGCCAGCTGGCGAGTATCTGGAGGAGCTGGATCAGATCT  
GCATTTCTTTTGACGAAGGCAAGACCACAATGAACCTTCATTGAGGCAGCGTTGTTGATCCAGGGCTCTGCCTGCG  
TCTACAGTAAGAAGGTGGAATACCTCTACTCAGTCTACAGGCCCTTGATTTTCATCTCTGGAAAGAGGCGGG  
CCAAGCAGCTCTCTTCGGTGCGAGGAGGACAGGGCCAATGGGGTTGCCAGCTCCGGGGTCCCCAGGAGGCAGAGA  
ATGAGTTCCCTGTCGCTGGATGACTTCCCTGACTCCCGGACTAACCTGGATCTCAAGAAATGATCAGACGCCAGTG  
AGGTCCCTCATCATCCCCCTCCTGCCCATGGCCCCCTGGTGGCCCCGTGATGAAATGGAGAGAACAACAATCCCCGT  
ACAGCCGTCAGGGTGAGGTCTTGCCAGCCGGAAGGATTTACAGGATGAACACGTGCGTTCCCCACCCAGAGGGG  
CCTTCATGTTGGAGCCAGAGGGCATGTCCCCATGGAACACGCGGCGTTTCCCCATGCCAGGGACCCAGAAGG  
ACACCGGGAGGACTGAGGAGCAGCCAATGGAAGTTTCGTTGTCAGGAGCCCTGTCCAGCACTCGGCTTCTCCC  
AGGAGCCAGGCCCTCTCCAGAAGGCCGATGCCCTTGGTGGGGCGAGGACGAGGATGCAGAGGAGGCAGTAG  
AGCTTCCTGAGGCCTCGGCCCCCAAGGCCGCTCTGGAGCCCAAGGAGTCCAGGAGCCCCGACAGAGGTGGGACCCA  
CATGGAGGCCTGCAGAACCTGAGCTGTGAACTGGCAACCCCTGGCTCTGGGGCCGAGTCACCTTGCAACAAGGAGGA  
CAGTGGTATGGCCTTGGCCCCAGACCACTGGTCTGGGGCAGAAGCCCCCTGTCTTGACGCCCTCCTGCAACCA  
GCCCTTTTGAAGAGCAGCTTCTGTGTTCTCCCTCTCTGAGCAGAACTGATGCTCTCAGAGTAGTGGGCTGGC  
GTCCAAGGATTTGAGCCCTGTGAGCTCACGGCAACCTGGGATGGCCGCCGGTTGCCAAGGCGCCTCTCTGCAGT  
CGGGCTGGTAGGAGGAGTGTCTGGAGGCCATTGTGCTCCCTCAACCCCCGGGGTCAACTGTACCCAGCCGATG  
AGCCAAGAAATCCTTCTCTTTTATTTCATTAACAAAAATCAACCTGAAAAAAAAAAAAAAAAAAAA

**FIGURE 425**

MALVAPDEMEKINNPLYSRQGEVLASRKDFRMNTCVPHPRRAFMLEPEGMSMPMEFAGVSPMPGTQNDTGRTEEQP  
MEVSVCRSPVPALGFSQEPGSPSPERMPLGGGEDEDAEEAEVELPEASAPKAALEPKESRSPOQSAALPRRYMLRE  
REGAPEPASCVKETPDLWQSLDPLNSLESKPFKKGRPYSPPCVEEALGQKRKRKGAAKLQDFHQWYLVAYADHA  
DSRRLRRKGFSFADMEVLYWTHVKEQLETLRKLQRREVAEQWLRPAEEDHLEDSPGRPGGSR

## FIGURE 426

TTGGAACCAAGAGAGAAGCCGGGATGCGAACTCCAAACACCACAGAGGACTATGACACGACCACAGAGATTGACTA  
TGGGGATGCAACTCCGTGCCAGAAAGTGAAACGAGAGGGCCTTTGGGGCCCAACTGCTGCCCTCTGTACTCCTT  
GGTATTGTGTCATTGGCCCTGTTTGGAAACATCCTGGTGGTCTGGTCTTGTGCAATACAAGAGGCTAAAAACAT  
GACCAGCATCTACCTCTGTAACCTGGCCATTCTGACCTGCTCTTCTGTTTCAGGCTTCCCTTCTGGATCGACTA  
CAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCATGTGTAAGATCCTCTCTGGGTTTATTACACAGGCTTGTA  
CAGCGAGATCTTTTTATCATCTCTGCTGACGATTGACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCCCTTGGC  
GGCAGCGACCGTCACTTTTGGTGTATCACCAGCATCATCTTTGGGCCCTGGCCATCTTGCTTCCATGCCAGG  
CTTATACTTTTCCAAGACCAATGGGAATTAAGTCAACACACCTGCAGCCTTCACTTTCTCACGAAAGCCTAGG  
AGAGTGAAGCTGTTTACAGCTCTGAACTGAACCTCTTTGGGCTGGTATTGCTTTGTTGGTATGATCATCTG  
CTACACAGGATTATAAGATTCTGCTAAGACGACCAAAATGAGAAGAAATCCAAAGCTGTCGGTTTGATTTTTGT  
CATCATGATCATCTTTTTTCTCTTTTGGACCCCTACAATTGACTATACTTATTCTGTTTTCCAAGACTTCCT  
GTTTACCCATGAGTGTGAGCAGAGCAGACATTTGGACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCA  
CTGCTGTGTCAACCCAGTGATCTACGCTTCGTTGGTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCACAG  
GCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCTTCTCTCCGTGGACAGGCTGGACAGGGTCAGCTCCACATC  
TCCCTCCACAGGGGAGCATGAACCTCTCTGCTGGGTTCTGACTCAGACCATAGGAGGCCAACCCAAAAAAGCAGG  
CGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGGCTCTCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGT  
CACAGCCACTTGGGATAGAGAGGGAATGTAATGGTGGCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTC  
CATGAACCTTCTCCCTGGTAGAAGAAGATGAATGAGCAAAACCAAAATATCCAGAGACTGGGACTAATGTACCA  
GAGAAGGGCTTGGACTCAAGCAAGATTTAGATTTGTGACCATTAGCATTTGTCAACAAAGTCACCCACTTCCCA  
CTATTGCTTGCACAAACCAATTAACCCAGTAGTGGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATG  
GGAGACACTGATGTATGAGGAATTTCTGTTCTTCCATCACCTCCCCCCCCCGCCACCTCCCACTGCCAAGAA  
CTTGGAAATAGTGATTTCCACAGTGACTCCACTCTGAGTCCACAGGCCAATCAGTAGCCAGCATCTGCCTCCCT  
TCACTCCCACCGCAGATTTGGGCTCTTGGAACTCTGGGGAACATAGAATCATGACGGAAGAGTTGAGACCTAAC  
GAGAAATAGAAATGGGAACTACTGCTGGCAGTGGAACTAAGAAAGCCCTTAGGAAGAAATTTTATATCCACTAA  
AATCAAAACAATTCAGGGAGTGGGCTAAGCACGGGCCATATGAATAACATGGTGTGCTTCTTAAATAGCCATAAA  
GGGGAGGGGACTCATCTTTCCATTTACCTTCTTTTCTGACTATTTTTCAGAACTCTCTCTTTTCAAGTTGGG  
TGATATGTTTGGTAGATTCTAATGGCTTTATTGCAGCGGTTAATAACAGGCCAAAGGAAGCAGGGTTGGTTTCCCT  
TCTTTTGTCTTCTATCTAAGCCTTCTGGTTTTATGGCTCAGAGTTCGAGCTGCCATCTTGGACTTGTGACGAAA  
AAAAAATAATAATAATAATAAGCCCTGCTGTGTAAGCTGACAGTATTGTAGCTGATAGGGGTTGGGAGGA  
AGTGCTACTAGGAGGGTGGGTGAGATCTGTGTTGATGT

**FIGURE 427**

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVVLVLVQYKRLKNMTSIYLLN  
LAISDLLFLFTLPFWIDYKDKDDWVFGDAMCKILSGFYTTGLYSEIFFII LLTIDRYLAIVHAVFALRARTVTFG  
VITSIIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLFOALKNLFGVLVPLLVMIICYTGIKI  
LLRRPNEKKSKAVRLIFVIMIIFFLEWTPYNLTILISVFQDFLETHECEQSRHLDLAVQVTEVIAYTHCCVNPVI  
YAFVGERFRKYLQLFHRRVAVHLVKWLPFLSVDRLDRVSSTSPSTGEHLSAGF

## FIGURE 428

GGCACGAGCCAGAAACAAGACTTCACGGACAAAGTCCCTTGGAAACCAGAGAGAAGCCGGGATGGAAGAACTCCAA  
ACACCACAGAGGACTATGACACGACCACAGAGTTTGACTATGGGGATGCAATCCGTGCCAGAGAAGGTGAACGAGA  
GGGCCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTTGGTATTGTTCATTTGGCTTGGTGGAAACATCCTGG  
TGGTCTTGGTCTTTGTGCAATACAAGAGGCTAAAAAACATGACCAGCATCTACCTCCTGAACCTGGCCATTTCG  
ACCTGCTCTTCTGTTTACGCTTCCCTTCTGGATCGACTACAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCA  
TGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTACAGCGAGATCTTTTCATCATCTCTGCTGACGATTG  
ACAGGTACCTGGCCATCGTCCACGCCGTGTTTGGCTTGGGGCACGGACCGTCACCTTTGGTGTCTACCCAGCA  
TCATCAITTTGGGCCCTGGCCATCTTGGCTTCCATGCCAGGCTTATACCTTTTCCAAGACCCAATGGGAATTCACTC  
ACCACACCTGCAGCCTTCACTTTCTCTACGAAAGCCTACGAGAGTGGAAAGCTGTTTCAGGCTCTGAAACTGAACC  
TCTTTGGCTGGTATTGCTTTTGGTGTGATCATCTGCTACACAGGGATTATAAAGATTCTGCTAAGACGAC  
CAAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTTGTCTCATGATCATCTTTTTCTCTTTTGGACCCCT  
ACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCCGTTCACCCATGAGTGTGAGCAGAGCAGACATTGG  
ACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCACTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTG  
GTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTCCACAGGCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCT  
TCCTCTCCGTGGACAGGCTGGAGAGGGTCAGCTCCACATCTCCCTCCACAGGGGAGCATGAACCTCTCTGCTGGT  
TCTGACTCAGACCATAGGAGGCCAACCCAAAAATAAGCAGGCGTGACCTGCCAGGCACACTGAGCCAGCAGCTGG  
CTCTCCCGACCGAGGTTCTGACTCTTGGCACAGCATGGAGTCAACGCCACTTGGGATAGAGAGGGAATGTAATGGT  
GGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTCCATGAACCTCTCCCTGGTAGAAAGAAGATGAATG  
AGCAAAACCAATATTCCAGAGACTGGGACTAAGTGATCCAGAGAGAAGGCTTGGACTCAAGCAAGATTTCAGATT  
TGTGACCATTAGCATTTGTCAACAAAGTCACCCACTTCCCACTATTGCTTGCACAAACCAATTAACCCAGTAGT  
GGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATGGGAGACACTGATGTATGAGGAATTTCTGTCTTCTC  
CATCACCTCCCCCCCCCGCCACCTCCCACTGCCAAGAACTTGGAAATAGTGATTTCACAGTGACTCCACTCT  
GAGTCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCCTCACTCCCACCGCAGGATTTGGGCTCTTGGAAATCC  
TGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAACGAGAAATAGAAATGGGGGAACACTGCTGGCAGT  
GGAAC TAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAAAATCAAACAATTCAGGAGTGGGCTAAGCACGG  
GCCATATGAATAACATGGTGTGCTTCTTAAAAATAGCCATAAAGGGGAGGGACTCATATTCCATTATCCCTTCT  
TTTCTGACTATTTTCAGAATCTCTCTTCTTTTCAAGTTGGGTGATATGTTGGTAGATTCTAATGGCTTTATTGC  
AGCGATTAAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCTTCTTTTGTCTTCTATCTAAGCCTTCTGGTTTT  
ATGGGTCAGAGTCCGACTGCCATCTTGGACTTGTGACGACAAAAA

**FIGURE 429**

METPNNTTedydtttefdydatpcqkvnerafgaqlpplyslvfviglvgnilvvlvlvqykrlnmntsiylln  
laisdllflftlpffwidyklkddwvfGDAMCKILSGFYyTGLYSEIFFIILTTIDRYLAIVHAVFALRARTVTFG  
VITSIIWALAILASMPGLYFSKTQWefTHHTCSLHFPHEsLREWKLfQALKLNLfGLVLPLLVMIICYTGI IKI  
LLRRPNekkSkavRlIFVIMIffFLWTPYnLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNpVI  
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLERVSSTSPSTGEHLSAGF

## FIGURE 430

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCACATTCCGTCACCTGC  
TCAGAATC**ATG**CAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG  
CATCACTTGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCAGGAGATCCACAGAAATTCATAG  
CTGACTACTTTGAGACGAGCAGCCAGTGTCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT  
GTGCTGACCCAGTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCC**TGA**GGGGTCCAGAAGC  
TTCGAGGCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTTGGGAAACATGCGTGTGACCT  
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAACTTAAATTTTAA  
TTTATTTATACTATTTAGTTTTTGTAAATTTATTTTCGATTTACAGTGTGTTTGTGATTGTTTGTCTGAGAGTT  
CCCCGTGCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT  
CATGGCACCAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTCAGGGCTGTGATCGGCCTGGGGAAA  
TAATAAAGCACGCTCTTTTAAAGGT

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**FIGURE 431**

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPGVIFLTKRSRQVCAD  
PSEEWQKYVSDLELSA



**FIGURE 432**

GCTACACTAGAGCAGAGTACGAGICTGAGGCGGAGGGAGTAATCGSCAGGACAAGCGTTTAGAAAAGTTCTTCCAC  
TCTTTGACCGAGTATTGGTTGAAAGGAGTGCTGCTGAAACTGTAAACCAAGGAGGCATTATGCTTCCAGAAAAAT  
CTCAAGGAAAAGTATTGCAAGCAACAGTAGTCGCTGTTGGATCGGGTCTAAAGGAAAGGGTGGAGAGATTCAAC  
CAGTTAGCGTGAAAGTTGGAGATAAAGTTCTTCTCCCAGAATATGGAGGCACCAAAGTAGTTCTAGATGACAAGG  
ATTATTTCTATTAGAGATGGTGACATTCTTGGAAAGTACGTAGACTGAAATAAGTCACTATTGAAATGGCATC  
AACATGATGCTGCCCATTCACCTGAAGTTCTGAAATCTTTCGTCATGTAATAATTTCCATATTCTCTTTTATA  
ATAAACATATGATAACTAATGACATCCAGTGCTCCAAAATTGTTTCCTTGTAATGATATAAACACTTCCAAATA  
AAAATATGTAAAT

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**FIGURE 433**

MAGQAFRKFLPLFDRVLVERSAAETVTKGGIMLPEKSQGKVLQATVVAVGSGSKGKGGEIQPVSVKVGDKVLLPE  
YGGTKVVLDDKDYFLFRDGDILGKYVD

## FIGURE 434

CTCCGCTGCTGTCGCCAGGAGTCACTTCACGAGAAGCCAGGTCACAACCGTCGGCCCTTGCTCTGGAAGTAAAA  
GTGGATCCTGCCACGTTTCGGAGCTCCCTGGCGCCTCGCCCGGCTGGAGCTAGAGAAGTCTGCTCTGTCGGCGCCCC  
CGGCGTGGGCGGGACAGCGGCCCTTGAGGGGGCAGTCCCGGGAGAACCTGCGGCGGCCGAGCGGTAAAAAT  
AAGTGACTAAAGAAGCAGACCTGGGAATCACCTAACATGTCGAGGAGGAGATTTGATTGCCGAAGTATTCAGGC  
CTACTAACTACAACCTCCTCAAATTTCAATAAAAAATGGAAAACCTTTAATAATTTCTATATACTTACATCTAAAGAG  
CTAGGGAGAGGAAAAATTTGCTGTGGTTAGACAATGTATATCAAAATCTACTGGCCAAGAAATATGCTGCAAAATTT  
CTAAAAAAGAGAAGAAGAGGACAGGATTTGTCGGGCAGAAATTTACACGAGATTGCTGTGCTTGAATTTGGCAAAG  
TCTTGTCGCCGTTTATTAATCTTCATGAGGTCTATGAAAATACAAGTGAAATCATTTTGATATTGGAATATGCT  
GCAGGTGGAGAAATTTTCAGCCTGTGTTTACCTGAGTTGGCTGAAATGGTTTCTGAAAATGATGTTATCAGACTC  
ATTAACAATACTTGAAGGAGTTTATTTCTACATCAGAATAACATTGTACACCTTGATTAAAGCCACAGAAT  
ATATTACTGAGCAGCATATACCTCTCGGGGACATTAAAAATAGTAGATTTTGGAATGTCTCGAAAAATAGGGCAT  
GCGTGTGAACTTCGGGAAATCATGGGAACACCAGAATATTTAGCTCCAGAAATCCTGAACTATGATCCCAATACC  
ACAGCAACAGATATGTGGAATATTTGGTATAATAGCATATATGTTGTTAACTCACACATCACCAATTTGTGGGAGAA  
GATAATCAAGAAACATACCTCAATATTTCTCAAGTTAATGTAGATTATTCGGAAGAAACTTTTTTCATCAGTTCA  
CAGCTGGCCACAGACTTTATTCAGAGCCTTTTAGTAAAAAATCCAGAGAAAAGACCAACAGCAGAGATATGCCTT  
TCTATTCTTGCTACAGCAGTGGGACTTTGAAAACCTTGTTTACCTGAAGAACTTCCAGTTCTCTCAAACCT  
CAGGATCATTTCTGTAAGGTCTCTGAAAGACAAGACTTCTAAATCCTCTGTAATGGAACCTGTGGTGATAGAGAA  
GACAAAGAGAATATCCAGAGGATAGCAGCATGGTTTCCAAAAGATTTCGTTTCGATGACTCATTACCCAATCCC  
CATGAACTTGTTTCAGATTTGCTCTGTAGCACTTTTCTTTGACTCATTGGACTGAATTTGAAATTTTATAT  
CCACTCCAGTGAGATTATGATTTGAGCTTCATATATGACATGTTTATATTGTAATGCACTTTTCCATGGAATA  
ATTTAGGGAAGTGTGTTTAAATGTTAAATTAAGTTGCTAGCATGTTATGATTTCATATCCTGAGATAGCTCTGCA  
GATAAGAAAAATTTTAAATATATGACAAAAAGTAAATTTGACATGTGAAAG

**FIGURE 435**

MSRRRFDCRSISGLLTTPQIPKMFNNFYILTSKELGRGKFAVVRQCISKSTGQEYAAKFLKKRRRGQDCRA  
EILHEIAVLELAKS CPRVINLHEVYENTSEIILILEYAAGGEIFSLCLPELAEMVSENDVIRLIKQILEGVYYLH  
QNNIVHLDLKPQNILLSSIYPLGDIKIVDFGMSRKIGHACELREIMGTPEYLAPEILNYDPITTATDMWNIGIIA  
YMLLTHTSPFVGEDNQETYNISQVNV DYSEETFSSVSQLATDFIQSLLVKNPEKRPTAEICLSHSLWQQWDFEN  
LFHPEETSSSSQTQDHSVRSSDKTSKSSCNGTCGDREDKENIPEDSSMVSKRFRFDDSLPNPHELVS DLLC

TAAGTACGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTACTGACTGTTATAATAACACTACACCAGCA  
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCACTGGCAATAGACATTTTCTTATTCTTAA  
AAAACAGCAACTTGTGCTACTTTTATTCTGTGATTTTTTTCTTGGTGTGTGTGTGTGTGTGTGTGTAAAGT  
GTGGAGGGCAAAAGGAGATACCATCCAGGCTCAGTCCAAACCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT  
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAAAATGATGACCGCCAAGGCCGTAGACAAAAATCCAGTAA  
CTCTCAGTGGTTTTGTGACCAGCTGTCTGACAACTATACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA  
TCTTTCCCAATGCCGAATGGGAGGCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG  
ACATGACTGGAGAGAAGAGGTCGTTGGATCTCCCATATCCACGACGCTTGTCTCCGCTCTCTGCACCTAGAAACC  
AGACCTTCACTTACATGGGCAAGTTCTCCATTGACCCCTCAGTACCCTGGTGCCAGCTGTACTCCAGAAAGGCATAA  
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCAAGCTTCAACCAAGCCTCATCCAGCGTCACT  
CTGGCTCCCCAACCACTGGCCACAGGACCCTGGGTGTGTGCACCATGTCCAGACCCAGCCTGACCTGGACC  
ACCTGTACTCTCCGCCACCGCCTCTCTCTCTTATTCTGGCTGTGCGAGGAGACCTTACCAGGACCCCTTCTGGCT  
TCCTGTGACGACGCCACCACTCCACCTCTTCTCTCTGCGCTACCCACCACTCTCTCTATCCATCCCCCAAGC  
CAGCCACGGACCCAGGTCTCTTCCCAATGATCCAGACTATCTGGATTCTTTCCATCTCAGTGGCCAGGACGACC  
TACATGGTACAGCTGGCCAGACCGTAAGCCCTTTCCCTGCCCACTGGACACCTCTGGGTGCCCCCTCAGCTCA  
CTCCACTCTCTACAATCCGTAACCTTTACCCTGGGGGGCCCCAGTGTGGGTGACCCGACCGGGGCCAGTGGAG  
GCAGCGAGGAGCCCCGGTGCCTGGTAGCAGCTACGACGAGCAGCAGCCGCCGCCGCCGCCCTATAACCCCA  
ACCACCTCCCACTGCGGCCCATTTGAGGCTCGCAAGTACCCCAACGACAGCAAGACGCGCGGTGCACGAGA  
GGCCCTACCCGTGCCAGCAGAAGGCTGCGACCGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA  
TCCACACTGGGCATAAGCCCTTCCAGTGTGCGATCTGCATGCGCACTTACGCCGAGTGACCACTCACCACCC  
ATATCCGCAACCCACCGGTGAGAAAGCCCTTCGCTGTGACTACTGTGGCCGAAAGTTTGGCCGGAGTGTGAGA  
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAGCAGTGGCCCTCTGCATCTGGTGCCAGCCC  
CTCTACAGCCTCTGTCTTGGGGGGTGCAGCCTGGGGGTACCCCTGTGCGACAGTAACAGCAGCAGTCTTGGCG  
GAGGGCCGCTCGCCCTTGTCTCTCGGACCCGGACACCTTGAGATGAGACTCAGGCTGATACACCACTCCCA  
AAGGTCCCGGAGGCCCTTTGTCTCACTGGAGCTGCACAACAAACACTACCACCTTCTCTGTCCCTCTCTCCCTTT  
GTTGGGCAAGGGCTTTGGTGGAGCTAGCACTGCCCTTTTCCACCTAGAAGCAGGTTCTTCTTAAACTTAGCC  
CATTTAGTCTCTTTAGGTGAGTTGACTATCAACCCAAAGCAAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGA  
TCCCTGGCCAAAGGGGTGAGGTCTGACCCTGCTTTAAAGGGTTGTTGACTAGGTTTGTACTACCCCACTTCCC  
CTTATTTGACCCATCAGAGTTTTTGACCCTGGATGTCAGAGTTGATCTAAGACGTTTTCTACAATAGGTTGGG  
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAACTGATGTGCATTTATGGCTTGGGACTGAT  
TTGGGGGACATTTGACAGTGAAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAAATGGTGAATCAGAGC  
ATATCTAGTTGTCTCAACCCCTTGAAGCAATATGTATTATATACTCAGAGAACAGAGATGCAATGTGATGGGAGGA  
ACGTAGCAATATCTGCTCCTTTTTCAGTGTGTTGAGAAATGTAGGCTATTTTTTCAGTGTATATCCACTCAGATT  
TTGTGATTTTTTGATGTACCCACACTGTCTCTAAATTCGAAATCTTGGGAAAAAATGTAAGCATTTATGATC  
TCAGAGGTTAACTTATTTAAGGGGATGTACATATTCTCTGAAACTAGGATGCAATTTGTGTTGGAAGTGTCT  
CTTGGTCGCTTGTGTGATGTAGACAAATGTACAGGCTGCATGTAATGGGTGCTTATTAAGGAAAAAA  
ATCACTCCCTGAGTTTAGTATGGCTGTATATTATGCCCTATTAATATTGGAATTTTTTTAGAAAGTATATTT  
TGATGCTTTGTTGTGACTATAAAAGGTTACCTTTGTAGTCAAAATTTGAGACAGAAAGATGTACATAATGTTACC  
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAAATAAATCTATTCTAACGCAAAACCACTAAT  
GAAGTTCAGATATAATGGATGGTTTGTGACTATAGTGAAATAAATACTTTTCAACAAT

**FIGURE 437**

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNaelGGPFdQmNGVAGdGMINIDMTGEKRSldLPY  
PSSFAPVSAPRNQTFYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSFASSTASSSVTSASPNPLATGPLG  
VCTMSQTQPDLDHLYSPPPPPPYSGCAGDLYQDPSAFLSAATTSTSSSLAYPPPPSYPSPKPATDPGLFPMIPD  
YPGFFPSQCQRDLHGTA GPRKPFPCPLD LRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSA  
AAAAAAAAAYNPHHLPLRPLILRPKYPNRP SKTPVHERPYPCPAEGCDRRFSRSDelTRHIRIHtGHKPFQCRIC  
MRNFSRSDHLTTHIRTHtGEKPFACDYCGRKfARSDERKRHTKIHLRQKERKSSAPsASVPAPSTASCSGGVQPG  
GTLCSNssSLGGGLAPCSSRTRTP

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FIGURE 438A

ATGAACCTCTGAAACTGCCGGCATCTGAGGTTTCTCCAAGGCCCTCTGAAGTCAGCCCCATAATGAAGGTTCT  
 GCGCGCAGGAGTTGTGCCCTTGTGTTGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC  
 TGTCAACGCCACCTGTGCCATCGCAACCCCATGTGCACAAACCTCATGAACAGATCAGGAGGCCAATGGGCACA  
 GCTCAATGGGATGGCAATGCCCTCTTTATTCTCTATTACACAGCCAGGGGGAGCGGTTCCCCAACAACTGGA  
 CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCAGGAGAAGGCCAAGCTGTGTGA  
 GCTGTACCCGATAGTCGTGTACCTTGGCACCTTCCCTGGGCACATCACCCGGGACAGAGAATCTCTAACCCGAG  
 TGCCCTCAGCCTCCACGCAAGCTCAACGCCACCGCGACATCCTGCGAGGCCCTCTTAGCAACGTCGTGTGGCG  
 CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA  
 GAAGAAGAAGCTGGGCTGTCAACTCTTGGGGAAGTATAAGCAGATCATCGCCGTGTGGCCAGGCGCTTCTAGCA  
 GGAGGTCCTGAAGTGTGCTGTGAACCGAGGAGTCTCAGGAGTTGGGTCCAGATGTGGGGCCGTGCCAAGGGTGG  
 CTGGGGCCAGGGCATCCTATAAACCAATGGGGCTGCTGGCAGACCCGAGGGTGCCTGGCCAGTCCACTCCA  
 CTCCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAACTTCCATAGGGAGGGAGCTAGAAGAAGTGGCCCTT  
 CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTCTGCCTCTACTTGTCCCTTTGGGCCCTTGTCTACT  
 TTGTGCAGTGAACAACTACACAAGTCACTACAAGAGCCCTGACCACAGGGTGAGACAGCAGCAGCGGAGGAG  
 TGGACCAGCCCCAGCAAATTACCACTCTGTGCCTTTGCTGCCCTTAGTTGGGACTAGGTGGGCCAGAGG  
 GGCTAGGATCCCAAAGGACTCTTTGTCCCTTAGAAGTTTGATGAGTGGAAAGATAGAGAGGGGCCCTTGGGATGGA  
 AGGCTGTCTTCTTTTGGAGGATGATCAGAGAACTTGGGCATAGGAACAACTCTGGCAGAAGTTTCCAGAAGGAGGTC  
 ACTTGGCATTCAGGCTCTTGGGAGGCCAGAGAAGCCACCTTACGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA  
 GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG  
 ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGCGAGGGGCAAGTTGCTAAGTCAGGTGCAGAGGTTT  
 TGAGGACCCAGGCTCTTCTCTGGGTAAAGGTCTGTAAAGAAGGGGCTGGGTAGCTCAGAGTAGCAGCTCACAT  
 CTGAGGCCCTGGGAGGCTTGTGAGGTACACAGAGGTACTTGAGGGGACTTGAAGGCCGTCTCTGGTCCCCAGG  
 CTAAGGGAACAGCAGAACTTAGGGTACGGGTCTCAGGGAACCTTGAGCTCCAAGCGTGTGTGCGTCTGACCTGG  
 CATGATTTCTATTATTATGATATCCATTATTAATTAATTTATTTGTTGCTTTTCAAGTGGCCAAGTTAATTCCTCT  
 TCCCTGGTCCCTACTCAACAAATATGATGATGGCTCCCGACACAGCGCCAGGGCCAGGGCTTAGCAGGGCCGTG  
 GTCTGGAAGTCGACAATGTTACAAGTGAATAAGCTTACGGGTGAAGCTCAGAGAAGGGTCGATCTGAGAAGAT  
 GGGGAGGCGCTGAGTGGGAGTGGGGGGCTTGTCTCACCCCATCCCTACTGTGACTTGTCTTAGCGGTGCAGGG  
 TCCAGGCTCAGCGGGCTGGGCCAATTGTGGAAGAGGCCGGGTGCCCTTCTGCTTGTCTTCCAGGGGGCTGGTTCAG  
 CACTGTTCTTGGGCGCCCGACATTTGTGTTGTGAGGCGCACTGTTCTGCGATGATTGTGCCCTTGGAGGAGTCA  
 GGGCAAGACAGTCTTGTGGCCCCACCTGTCTTGTGTTCTGTGTCCTTGTGCTCTGAAATAGCGCCCTGGA  
 ACAACCTTGCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCTCTGTGGCCCGGACCCCATAGAGCG  
 GTGCGGGGGGCTGTGCTGGGCGGACGCCAGGAAGGTGGGGTAGCTGGGGGATCAGTGTGCCATTGCTCCCAA  
 GAGGAGGAGAGGGAGGCTGCAGACGCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCACCCCCATCC  
 CACTCCCACCATGTCTGGGCTCCAGGCGAGGAACCCGATCTTCTCTTTGTGCTGGGGCCAGGCGAGTGGAGA  
 AACGCCCTCAGTCTGAGACAGAGGGAAGGGAAGGAGGCAAGAGTGTGGGCGAGCTGCTCAGAGCAGTGTCTGG  
 CTTCTTCTCAAACCTGTAGCGGGCTGCCGGCTCCAAGTTCTCTCCGACAAGATGATGGTACTAATTATGGTACTT  
 TTCATCTCACTTTGCACCTTTCCCTGTGCTCTCTAAGCACTTTACCTGGATGGCCGCTGGGCAAGTGTGACGAG  
 GTCTAGGCGCTTGGGTTGGGGTGGAGGGTGTGGGCGCGAGTTGTCCATCTGTCCGTCGTCGCAACAGGAAGCAGGAG  
 ATGTGGCTGTGAGATGTGGGCCACACTACCCCTTGTCCAGGATGCAGGAGTGCCTTCTCTCTCTCTCTATC  
 CGGCTTAGCTTGGGGCTGGCTGCATTTGCCAGGATGGGCTTCGAGAAAGACAAACTTGTCTGGAAACAGAGATT  
 GCTGATTACACCCGGGGGCGCCGCTGACTTGCCTCATCACTCATCTCCCTGTGGACTTGGGAGCTCTGTGCCAG  
 GCCACCTTGGCGCCCTGGCTCTGAGTGCCTCTCCACCCAGCCTGGACTTGGGCCCATGGGACCCATCTCTAGT  
 GCTCCCTCAGATCCCGTCCCGAGCTTGGCGTCCACCTGTCACAGCATCACTGAATCAGAGCCCTTTGGGTGA  
 AACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTCCCTTTTATCTGCTGGTGTGGACCACACCTTGGGCGTGGC  
 CGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTTAAACATTTTAAAAAGCA  
 CTGCTAGTTTACTTGTCTCTCTCCCATCGTCCCATCTGCTCTCTGTGCTGCTGCTGGGCACTTCCACCT  
 GACCCAGCCAGTCCAGCTCTGCTTGGCGGCTCTCCAGATGACATAGTGTGTGGGTTGGAGCTCTGGCACCC  
 GGGGAGTAGCATTTCCCTGCAGATGGTACAGATGTCTCTGCTTAGAGTCATCTTAGTTCCCCACCTCAATCC

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**FIGURE 438B**

CGGCATCCAGCCTTCAGTCCCGCCACGTGCTAGCTCCGTGGGCCACCGTGCGGCCITAGAGGTTTCCCTCCTT  
CCTTTCCTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCTTTGATGAATGTACCCTGTGGGGATGTTTCAT  
ACTGACAGATTATTTTATTTATTCATGTCATATTTAAATATTTATTTTATACCAATGAATCACTTTTT  
TTTAAGAAAAAAGAGAAATGAATAAAGAATCTACTCTCG



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**FIGURE 439**

MKVLAAGVVP LLLVLHWKHGAGSPLPITPVNATCAIRHPCHNLMNQIRSQAQLNGSANALFILYYTAQGEPPF  
NNLDKLCGPNVTDPPPFHANGTEKAKLVELYRIVVYLGTS LGNITRDQKILNPSALSLSKLNATADILRGLLSN  
VLCRLCSKYHVGHVDVTYGPDTSGKDV FQKKKLG CQLLGKYQIIAVLAQAF

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FIGURE 40A

GCTGGCGGCGGCCGCCAGGGCCGGGGCGCGGCCAGCCTGAGCCCGCCCGCGCGGAGCGTACCGAACTT  
GCTTGAATGCAGCCGAGGAGCCGGGGCGGGCGGAGCGCGCGCGCGCGCGCGGGGAGCGGCAACCCCG  
GCGCGCGCGCAAGGACTCGGAGGGCTGAGACGCGCGCGCGCGCGCGCGGGAGCGCGGGCGCGCGCGGAGC  
CCGGCGCGCGCATGGGCCTCCCCGAGCCGGGCCCTCTCCGGCTCTGCGCTGCTGCTGCTGCTGCTGCTGCTG  
TGCTGCTGCGGCTCCAGCATCTTGGCGGCGAGCGGCTGATCCGCTGCTCGGCGGCCAAGGGCCGGCCAAGGAGT  
GCGAAAGGACCAATTCCAGTCCGCGGAACGAGCGCTGCATCCCCCTGTGTGGAGATGCGCAGGAGCATGACT  
GCTTAGACACGAGCAGCAGGAGGACTGCCCCAAAGAACTGTGCAGACGTACTCTACCTGTGACAAAGCGCC  
ACTGCATCCACGAACGGTGAAGTGTGACGGCGAGGAGGAGTGTCTGATGGCTCCGATGAGTCCGAGGCCACTT  
GCACCAAGCAGGTGTGCTCTGCAGAGAAGCTGAGCTGTGGACCCACGAGCCACAAGTGTGTAAGTGCCTGTGGC  
GCTGCGACGGGAGGAGGACTGCGAGGGTGGAGCGGATGAGGCCGGCTGTCTACCTTTGCGCCCCCGACAGT  
TCCAGTCCGGCAACCGCTCTGTCCCTGGCCGCGGTGTTGCTGTGCGAGCGGATGACGACTGTGGTGACGGCAGCG  
ATGAGCGCGGCTGTGCAGACCCGGCTGCGGGCCCCCGGAGTTCCGCTGCGCGCGCGATGGCGGGCGGCGCTGCA  
TCCCGGAGCGCTGGGCTTGCAGACCGCAGTTTGAAGTGCAGAGGACCGCTCGGAGGAGCGACCGAGCTTGCAGCGC  
GCCCGGGCCCCGGGCCACGTCCGCGCGCGCGCGCTGCGCCACCGCTCTCCAGTTCGCGCTGCCGCGAGCGGAGT  
GCGTGCACCTGGGCTGGCGCTGCGACGGCGACCGCGACTGCAAGACAACTGCAGACGAGCCGACTGCCCACTGG  
GCACCTCGCGTGGGAGCAGTTCCAGTGTGGGATGGGACATGTGTCCTTGAATCAAGCACTGCAACACGAGGAGC  
AGGACTGTCCAGATGGGAGTGATGAAGTGGCTGCTACAGGGGCTGAACGAGTGTGTGCACACAAATGGCGGCT  
GCTCACATCTGCAGCTGACCTCAAGATTGGGTTGAATGCAGTGCACGTCGCCAGCAGGCTTCAGCTCCTGGACCA  
AGACCTGTGGCGACATTGATGAGTGAAGGACCCAGATGCCTGCAGCCAGATCTGTGTCAATTACAAGGGCTATT  
TTAAGTGTAGTGCTACCTGGCTACGAGATGGACCTACTGACCAAGAACTGCAAGGCTGCTGGTGGAAAGAGCG  
CATCCCTAATCTTCCACCAACCGGTACGAGGTGCGGAGGATCGACCTGGTGAAGCGGAATATTACGCCCTCATCC  
CCATGTCTAAGAAATGTCTGGGCACTAGATGTGAAGTGGCCACCAATCGCATCTACTGGTGTGACCTCTCTTACC  
GTAAAGTCTATAGCGGCTACATGGACAAGCGCAGTGACCCGAAAGAGCAGGAGGCTCATTTGACGAGCAGTTGC  
ACTCTCAGAGGGGCTGGCAGTGGACTGGGTCCACAAGCAGCATCTACTGGCTCAGCTCGGGCAATAAGCACTT  
CAGTGGCCACAGTTGATGGTGGCGCGCGACGCACTCTCTCAGCCGTAACTTCAGTGAACCCCGGGCCATCGCTG  
TTGACCCCTGCGAGGGTTTATGTAATTGGTCTGACTGGGGGGACAGGCCAAGATTGAGAAATCTGGGCTCAACG  
GTGTGGACCGGCAAACTGGTGTGCAGACAATATTGAATGGCCCAACGGAATCACCCCTGGATCTGCTGAGCCAGC  
GCTTGTACTGGGTAGACTCCAAGCTACACCAACTGTCCAGCATTGACTTCAGTGGAGGCAACAGAAAGACGCTGA  
TCTCTCCACTGACTTCTGAGCCACCTTTTGGGATAGCTGTGTTGAGGACAGTGTGTTCTGGACAGACCTGG  
AGAACGAGGCCATTTTTCAGTGCAAACTGGGCTCAATGGGCTGGAATCTCCATCTGGCTGAGAACCTCAACAACC  
CACATGACATTTGCTATCTTCCATGAGCTGAAGCAGCCCAAGAGCTCCAGATGCTGCTGAGTGTGCTCCAGCTTA  
ATGAGGAGCTGTGAATAGCTGTGCCCTTCTGCTCCAGATCTCCAGCAGCTCTCCAAGTACACATGTGCTGCTGTC  
TGACACAATGTGGCTGGGTCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCACTACGACGTTAG  
CTTCTACCATGACGAGGACAGTACTTGCACCAACAGAGCCCCGGGACCCGCTCCAGATGCCAAGTCCACCTACCA  
ACCAAGCAGCAGAGACCAAGCTGACAGCTGCCAGTCCCAAGCTCAGTTAGTGTGCCAGGGGCTCCAGCATCA  
GCCCGTCTACCTAAGCCCTGCAACACGCAACCACTCCACGACACTATGCAAAATGAAGACAGTAAGATGGGCTCAA  
CAGTCACTGCCCGCTTATTCGGGATCATCGTGCCCATAGTGGTGATAGCCCTCTGTGATGAGTGGATACCTGA  
CTGGAGAAACTGGAAAGGGAAGAACCAAAAGCATGAATTTTGACAACCCAGCTACAGAGAAACCAACAGAA  
AAGAAGATGAAGATGAGCTCCATATAGGGAGAACTGCTCAGATTGGCCATGTCTATCTGCAGCAATACGAGCT  
TTGATCGCCCACTGTGGGCGAGGCCCTGTCTTGGGGAGACGAGAAACCGGAAGACCCAGCCCTGCCCTCAAGG  
AGCTTTTGTGCTTGGCGGGGGAACCAAGGTACAGCTGCACCACTCCCGGAAGAACCTCTTTCGAGGCTCGCTG  
TCGTCAAATCCAGCGAGTGGCATTAAGCCTTGAAGATGATGACTACCCTGAGAGTGGGATACAGCCCTTCTGGT  
CCTCATGGAATTCAGTCCCATGACTACACTCTGATGGTGTATGACTGGATGAATGGGTTCTATATATGGGTC  
TGTTGAGTGTATGTGGTGTGATTTTTTTTTTAAATTTATGTGCGGAAAGGTAACCAAAAGTTATGATGA  
ACTGCAAACTCAAAAGGATGTAGAGTGTTCCTATGATAATGTTTTTAACTTTTAACTGGTGTGACTACC  
CTAGGGAATTCGTGGAAATGGCTACTGCTGACTAACATGATGCACATAAACAAATGGGGGCCAATGGCAGTAC  
CTTAGCTCATCTTTAAAACTATATTTACAGAAGATGTTTTGGTGTGCTGGGGGGCTTTTTTGGGTTTTGGGGCAT  
TTGTTTTTGTAAATAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAATAAAAAAACCTTC

**FIGURE 440B**

AAC TCCCTCCCCATT TAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATTTAGAGAAG  
TGAGAGTATTTATTTTGGCATGTTTGGCCCCACACAGACTCTGTGTGTATGTGTGTGTTTATATGTGTAT  
GTGTGTGACAGGAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAAAATTTATTT  
TCACACAGTCCACAAGGGGTATATCTTGTAGTTTTCAGAAAAGCCTTTGGAAATCTGGATCAGGAAATAGATACC  
ATGGTTTGTGCAATTATGTAGTAAAAAGGCAAATCTTTTACCTCTGGCTATTCTCTGAGACCCAGGAAGTCAG  
GAAAAGCCTTTCAGCTCACCCTATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGGTCAGTGTA  
CAGACATTCCATGGTACCAGAGTGCTCAGAAAGTCAAGATAGGATATGCCTCACCTCAGCTACTCCTTGTTT  
AAGTTTCAGCTCTTTGAGTAACCTTCTCAATTTCTTTCAGGACACTTGGGTTGAATTCAGTAAGTTTCCCTCTGAAG  
CACCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTATAGAGACTG  
GCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGAAATAGGTTTTATCACATCTCTTA  
TTTCTCTTTCCCTTACTCTCTACCATTTCTTTATGTGGGAAACATTTTAAGGTAATAAATAGGTTACTTAC  
CATCATATGTTTCATATAGATGAACTAATTTTGGCTTAAGTCAGAACAACTGGCCCCCAATTGAAGTCATATTT  
GTGGGGGAAATGGCATACGCAATATTATATTATATTGGATATTTATGTTACACAGGAATTTGGTTTACTGCTT  
TGTAATAAAAGGGAAACTCCGGGTATATGT

**FIGURE 441**

MGLPEPGPLRLALLLLLLLLLLLRLQLHAAAAADPLLGGQGPAAKECEKDQFQCRNERCIPSVWRCEDDDDCLDH  
SEDDDCPKKTCADSDFTCDNGHCIHERWKCDGEEECPDGSGDESEATCTKQVCPAEKLSGCGTSHKCVPASWRCDG  
EKDCEGGADEAGCATLCAPHEFQCGNRSCLAAVFVCDGDDDCGDGSDERGCADPACGPREFRCGDGGGACIPER  
WVCDRQFDCEDRSDEAAELCGRPGPGATSAAPACATVSQFACRSCECVHLGWRCGDGRDCKDKSDEADCPLGTCR  
GDEFQCGDGTCLVAIKHCNQEQDCPDGSDGAGCLQGLNECLHNNGGCSHICTDLKIGFECTCPAGFQLLDQKTCG  
DIDECKDPDACSQICVNYKGYFKCECYPGYEMDLLTKNCKAAGGKSPSLIFTNRYEVRRIDLVRNYSRLIPMLK  
NVVALDVEVATNRIYWCDLSYRKIYSAYMDKASDPKEQEVLIIDEQLHSPEGLAVDWVHKHIYWTDSGNKTI SVAT  
VDGGRRTTLFSRNLESPRAIAVDPLRGFMYSWDWGDQAKIEKSGLNGVDRQTLVSDNIEWPNGITLDLLSQRLYW  
VDSKLHLQSSIDFSGGNRKTLISSTDFLSHPFGIAVFEDKVFWTDLNEAIFSANRLNGLEISILAENLNNPHDI  
VIFHELKQPRAPDACELSVQPNGGCEYLCLPAPQISSHSPKYTCACPDIMWLGPDMKRCYRAPQSTSTTLASTM  
TRTVPATRAPGTTVHRSTYQNHSTETPSLTAAPSSSVSVPRAPSI SPSTLSPATSNHSQHYANEDSKMGSTVTA  
AVIGIIVPIVVIALLCMSGYLIWRNWRKNRKTSMNFDNPNVYRKTTEEEDEDELHIGRTAQIGHVYPAAISSFDPR  
LWAEPCLGETREPEDPAPALKEFLVLPGEPRSQLHQLPKNPLSELFPVVKSKRVALSLEDDGLP

## FIGURE 442

TAGGATGGAAAGGCAGATGTAAAGTCCCTCATGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTC  
GTCAATAGCCGACCCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC  
AACCAGGAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA  
GTCAAACCTTCTTCTGAGGAAAAGCGCTGACAAGGAACCCAAAGCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAA  
AGATTGCGAACACCAGCCAGCTTGACCACCAGAGACCCGAGGCGAAAGTGGGATTCTGAAACCTGTAGGCCCC  
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGGCTCCTGGAAACAAGCCATCTCTTCAC  
AGTGTAAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCTACTCCTCAACCTCAGAAAATGAA  
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAATTTATGTGACGATCACAAGATCTTGAACCCCAAG  
CCCCCTTTCCCCAAACCCGCTTTGGCCAGAAGCCGCCCTAAGTACCAGAACTCCCATGAAGACGAAAGCCCC  
ATGAAGAATGTGCTTTCATCAAAGGGTCCCCAGCTCCCCGGGAGTCAGGTCCAAAAGCGGCCCTTTAAACCA  
GCAAGGGAAGACTCAGAAAATAAAGACCATGCAAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAA  
CCTGCTGCGAGCAGGGGAGGCTAGGTCTCTCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT  
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCTGCCAGGTTCCCTAAG  
GCCCTTCTAAGCTGACAGTGGGGGGCCATGGGGCCAAAGTCAGGAAAGGAAAGGGAGACAAGAATTACGCC  
ACCCCGAAACAGAAGCCATTGCCCTCCCTTGTGTACCTTGGGTCCACCTCCACCAAAACCCCAACAGACCACCAAT  
GTTGACCTGACGAAATTCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACA  
TCCCTGCCACCACCTCCACCATCCATCCGGCCAGCCCAACCACCTTGCAGCATCTCACCCTCACAACCA  
GTCCCAAGCTACCTCCAGAAACATTAAACCTCGTTTTGACCTAAAAGCCCTGTCAATGAAGACAATCAAGAT  
GGTGTACGCACCTGATGGTGTCTGGAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA  
GAAGCATCCAAAGAAAGAGAGAAAGAAAGGGAAGAAAGAAAGAGGTTAGAGCTGGAGAAAAAGGAACAG  
AAAGAGAAAGAAAGAAAGAACAAAGAAATAAAGAAAGAAATTTAACTAACAGGCCCTATTCAAGTCATCCATCTT  
GCAAAAGCTTGTGTGATGTCAAAGGAGGAAAGAAATGAAGTGAAGTCAAGCAAGGAGAGCAAAATTGAAATCATC  
CGCATCAGACAACCCAGAAGGAAAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTAACAAC  
GCTGTAGAGATTGACTATGATTTCTTGAAGTGAAGAAAGACTCTCTTGGTGCCCTTCAAGACCTATTGAAGAT  
GACCAAGAAGTATATGATGATGTTGACAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGAAGTGGAGGATA  
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT  
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGGGATACCTCTGATTTCCCTGTTTTCATCAGCAGAG  
ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAAGAAAGGACCTTAAAGAGCTAAAAAGCAGGAAAAA  
GAAGAAAAAGACTTCAGGAAAAATTTAAATATGATGGTGAATTAGAGTCCTATATTCACTAAAGTTTACAAC  
TCCATACTTCTAAAAAGTGGGGAACACAGAGATCTACAGGTAAACCTGGTGAATCTCTAGAAGTTATACAAAC  
ACAGATGACACAAAGTTCTCTGCAGAAAATGAAGAGGGAATATGGTTATGTCCTCGGAGTTACCTAGCGGAC  
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAAATGACTAGCACTCAACTTTGGTCAT

**FIGURE 443**

MAKYNTGGNPTEDVSVNSRPFRTVGPNSSSGIQARKNLFNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD  
KEPKPPFLKPTGAGQRFGTASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPWPGNKP SLHSVNQDHD LKP  
LGPKSGPTPPTSENEQQAFFPKLTGVVGKFMASQDLEPKPLFPKPAFGQKPP LSTENSHEDESP MKNVSSSKGS  
PAPLGVRSGSGLKPAREDS ENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKEDRKIDAAKNTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGP PPPKPNRPPNVDLTKFHKTS  
SGNSTSKGQTSYSTTSLPPPPPSHPASQPP LPASHFSQPPVPSLPPRNKPPFDL KSPVNEDNQDGVTHSDGAGN  
LDEEQDSEGETYED IEASKEREKKREKEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFKQGEQIEIIRITDNPEGKWLGR TARGSYGYIKTAVEIDYDSLKLKKDSLGA PSRPIEDDQEVYDDVAE  
QDDISSHSQSGSGGIFPPPPDDDIYD GIEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVS SAEMSQGINFGKA  
KTEEKDLKLLKQKEEEKDFRKKFKYDGEIRVLYSTKVITTSITSKWGT RD LQVKPGESLEVIQT TDDTKVLCRN  
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

[illegible]





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**FIGURE 445**

GSAPGREKEVGGRAQFAGPEGMFEDKPHAEGAAVVAAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEG  
EVTHWLACSLYVACRKSIIPTVGKGIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDSNLPQEFREIERLERN  
FEVSTVIFKKYEPFLDIFQNPYEEPPKLPRSRKQRRIPCSVKDLNFNCWTLFVYTKGNFRMIGDDLVSYHLLL  
CCLDLIFANAIMCPNRQDLLNIHHLKVYHLIFILLTLRLKSHPGIIAVLCELHDGLLVEAKGIKEHYFKPYISK  
LFDRLKILKGECLLDLSSFTDNSKAVNKEYEYVLTVVILMRGSGSRRRRNGTGRKFTTRDTPLGKLTAAQANVEY  
NLQQHFEEKRSFAPSTPLTGRRYLREKEAVITPVASATQSVSRLSQIVAGLKNAPSDQLINIFESCVRNPVENIM  
KILKGIGETFCQHYTQSTDEQPGSHIDFAVNRKLAEILYYKILETMVQETRRRLHGMDMSVLEQDIFHRSLMA  
CCLEIVLFAYSSPRTFPWIEVLNLQPFYFYKVIEWIRSEEGLSRDMVKHLNSIEEQILES LAWSHDSALWEAL  
QVSANKVPTCEEVIFPNNFETGNGGVQGHPLMPMSPLMHPRVKERVTDSGSLRRDMQPLSPISVHERYSSPTA  
GSAKRRLFGEPPKEMLMDKIITEGTLKLIAPSSITAENVSIILPGQTLLMATAPVTGTTGHKVTIPLHGVAND  
AGEITLIPLSMNTNQESKVKSPVSLTAHSLIGASPKQTNLTKAQEVHSTGINRPKRTGSLALFYRKVYHLASVRL  
RDLCLKLDVSNELRRKIWTCFEFTLVHCPDLMKDRHLDQLLLCAFYIMAKVTKEERTFQEIIMKSYRNQQAQNSHV  
YRSVLLKSIPREVVAYNKNINDDFEMIDCDLEDATKTPDCSSGPVKEERGDLIKFYNTIYVGRVKSFALKYDLAN  
QDHMDAPPLSPFPHIKQPGSPRRISQQHSIYISPHKNGSGLTPRSALLYKFNGSPSKSLKIDNNMIRQGEQRT  
KKRVIAIDSDAESPAKRVCQENDVLLKRLQDVVSEANH

GGGGCCAGTCGTTTCGCCGGAAGCATTGTCTCCACCTCATCATAACAACAATTAATTTTCCTCTGGGGCCTGAG  
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTACACGACAAAATGCCGAGGTGCTCG  
GTGGAGTCATGCGAGTGCCTTTTGTGGAAGACTGGGACTTGTTGCAAAACCTTGGGAGAAAGGTGCCTATGGAGAAG  
TTCAACTTGCTGTGAATAGAGTAAGTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT  
GTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATCTCTAAATCATGAAAATGTAGTAAAATTCATGTGTC  
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC  
CAGACATAGGCATGCCGTAACCCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG  
GTATTGGAATAACTCACAGGGATATTAAAACGAAAAATCTTCGTTGGATGAAAGGGATAACCTCAAAATCTCAG  
ACTTTGGCTTGGCAACAGTATTTCCGTATAATAATCTGTGAGCGTTTGTGTAACAAGATGTGTGGTACTTTACCAT  
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTTCATGCAGAACCAAGTTGATGTTTGGTCTGTGGAAATAGTAC  
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTCAGGAGTATTTCTGACTGGAAAAG  
AAAAAAAAACATACCTCAACCTTGGAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG  
AGAAATCCATCAGCAAGAATTACCATTCAGACATCAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG  
CAAAAGGCCCGGAGTCACTTCAGGTGGTGTGTCAGAGTCTCCAGTGGATTTCTAAGCACATTCAATCCAATT  
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCGCA  
CAGGTCTTTCCCTTATGGGATACAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCCAGCCCA  
CATGCTCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCAGAACCCCTGGCAGCGGT  
TGGTCAAAAGAAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG  
AGAAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACATGATAGGAGAAACAATA  
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG  
GATTGGAGTTCAGAGACACTTCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC  
TTCTTGCCACATGATCGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATCTT  
CCTAGAGAAGATTATCCTGTCTCTGCAAACTGCAAAATAGTAGTTCTCTGAAGTGTTCACTTCCCTGTTTATCCAAAC  
ATCTTCCAATTTATTTTGTGTTGTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAAACCTTTGGGGAAA  
GGATGAATAGAAATTCATTGATTAATTTCTCATGTGTGTTTAGTATCTGAAATTGAAACTCATCTGGTGGAAACC  
AAGTTTCAGGGGACATGAGTTTTCAGCTTTTATACACAGTATCTCATTTTTATCAAAACATTTTGTGTTAATTC  
AAAAAGTACATATTTCTCCATGTTGATTTAATTTCTAAGATGAACCAATAAGACATAATTTCTGCAAAAAAAA  
AAAAAAAAAAAAAAAAA

**FIGURE 447**

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEA VAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR  
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG  
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK  
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF  
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVOGISFSQPTCPDHMLLNSQLLGTTPGSSQNPWQRLVK  
RMTRFFTKLDADKSYQCLKETCEKLG YQWKSCMNQVTISTTDRRNNKLI FKVNLLEMDDKIIVDFRLSKGDGLE  
FKRHFLKIKGLIDIVSSQKVWLPAT

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**FIGURE 448**

GGGGCCAGTCGTTGCCGGAAAGCATTGTCTCCCACTCATCATAACAACAATTAATTTCTCTGGGGCCGTGAG  
GAGGGCAGAAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTACACGACAAAATGCCGAGGTGCTCG  
GTGGAGTCTATGGCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAAACCTGGGAGAAGGTGCCATATGGAGAAG  
TTCAACTTGTCTGTAATAGAGTAACGTGAAGAAGCAGTCGCACTGAAGATTGTAGATATGAAGCGTGCCGTAGACT  
GTCCAGAAAATATTAAGAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTTCTATGGTC  
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC  
CAGACATAGGCATGCCTGAACCCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG  
GTATTGGAATAACTCACAGGGATATTAACCAGAAAATCTTCTGTTGGATGAAAGGGATAAECTCAAAATCTCAG  
ACTTTGGCTTGGCAACAGTATTTCCGTATAATAATCGTAGAGCGTTTGTGTAACAAGATGTGTGGTACTTTACCAT  
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTTCATGCAGAACCACTGTATGTTTGGTCCGTGGGAATAGTAC  
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTGAGGAGTATTTCTGACTGGAAAG  
AAAAAAAAACATACCTCAACCTTGGAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG  
AGAAATCCATCAGCAAGAATTACCATTCCAGACATCAAAAAAGATAGATGGTACAACAACCCCTCAAGAAAAGGGG  
CAAAAAGGCCCGAGTCACCTTCAGGTGGTGTGTGAGAGTCTCCAGTGGATTTCCTAAGCACATTCAATCCAATT  
TGGACTTCTCTCCAGTAACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA  
CAGGTCTTTCCCTTATGGGATACCAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCA  
CATGTCTCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCCAAGGATCCCTACAGAACCCCTGGCAGCGGT  
TGGTCAAAAGAATGACAGCATCTTTACCAAAATTGGATGCAGACAAATCTTATCAATGCGCTGAAAGAGACTTGTG  
AGAAGTTGGCTATCAATGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACTGATAGGAGAAACAATA  
AACTCAATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTGTACTTCCGGCTTCTAAGGGTGATG  
GATTGGAGTTCAAGAGACACTTCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC  
TTCTGCCACATGCATCGGACCATCGCTCTGGGGAATCCTGGTGAATATAGTGTGCTATGTTGACATTATCTTT  
CCTAGAGAAGATTATCCTGTCTCGCAAACTGCAAAATAGTAGTTCCTGAAGTGTTCACCTTCCCTGTTTATCCAAAC  
ATCTTCCAATTTATTTTGTGTTGCGCATACAAATAATACCTATATCTTAAATTGAAGCAAACTTTGGGGAAA  
GGATGAATAGAATTCAATTGATTATTTCTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAACC  
AAGTTTCAGGGGACATGAGTTTCCAGCTTTTATACACAGTATCTCATTTTTATCAAAACATTTTGTTTAATTC  
AAAAAGTACATATTTCTTCCATGTGATTTAATCTAAGATGAACCAATAAGACATAATTTCTGCAAAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 449**

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR  
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG  
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK  
TYLNPWKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF  
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQFTCPDHMLLSQLLGTGSSQNPWQRLVK  
RMTRFFTKLDADKSYQCLKETCEKLGQWKSCMNQVTISTDRRNKLIKVNLLMDDKILVDFRLSKGDGLE  
FKRHFLKIKGLIDIVSSQKVLPAT

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**FIGURE 450**

TTTAAGCGCCGGGTTTCGGGGCTCTGGCCCCGCTTATTCGCGGGGGTCGGCGGGGTCGGCTTGGCGCCG  
CGCCGCGCTGCGCTTTGTCCGTGGGCACACTGCTTCTGGGAGGGGCGGGCAGACATGGTGGCGGGCCGCGCCC  
CCTCCTCGGCCCTAGCATGCGCGCGCCCTCGCGGCTACCCGGCTTCCCGTCCCGAGCGGCAGCCCCGGGGT  
GCGATGGGGTTCGCGCCGAGGCAGCGGAGGTTCGCGGGCGACTGGAGGTTGGCAGTGGCGGGGAGAAAGAGGAAG  
GCAGGCGCGGCTGGGCCTCGGCCTCTGGCGCGCGGTACCTTTGTCTCGGCAGCCTGACGCCGCCCGCGGGCTC  
TCCGGAGAGGGGAACGGCGGCGAGGGTGGCGGGTCTTGGCGCCCTGTGCTGCGGGGCCGAGAGGCGCTCGGGT  
CGCGCGGGGACCGCGCGGACAGACAGGGTTAATGGAAGAGCCTGGCCAGTCCCGCGGGGGCCCCGACGCGAC  
AGCCTTGGCCGCGGGGACTGGAGTCTGAGGGGAGAAAGCCTGCCGTTCTGAAGGCTCGGGACTTCTGCCCCAAA  
GACTTCGCCGCCGAGAAGTCCGGTGCCTGAGGGAAGAAGTTGAGAATTTTGCAGGTCATCTCTGCCAG  
GGCAGAGTTTATCACTGTGTGTTTAGTGTGTTTCGGTGAAGCTCTCCAAGTGTGTTGAATCAGCGTGCTAGCCT  
CAAGGGTGATCGTGAAGAACTGAAACCAAGGAATGATACAGGCCTGCTTTGTGTGTCTCTCCACTTTAAGCT  
TGTTTTTCAGTACAAATACTCTTGCTTTAAACCTGATTGGACTGTGGCGAGCGGACATCTGTTCAAAGGAGGGGCC  
GAGACCACAGTACTTCTGAAGGGGGCTTGATAATGTGGAACATTTTAAGTTTTCTCTCCGGACTGTTTTGCTCT  
CTCAATTACGGCAAGTTACTGAAGTACGTTTTTTATCTAGAAAAAGGTTTGATGTAGCTGTAAATGGTCCTTGT  
AAAGTACATTGCCATCTCAGAATTAAGATCCACTCTCAITTTATTATGCAGAAGTTAGTGGTCACTCTTTCCCTG  
TAGATAGTTTTATCTCATGTAAAGACCCACCCAGCTTGGTTTAAATTTTTTCTCACTGACGTATAACCATCAGCT  
TTGATACTTCCATTTTACGGCTCAGACTTTGAATTAAGGAACTAAAGATGACTTTATTTCTTTTCTCTTGGT  
TTTTTTTTTCAAACCAAAAAATAATCCATTACATGTTAACATAGATGATAAGAGTGACATCTTGCATTTTTGC  
AAATCTTTTTTAATGCTGGTTTTAATAGAAGATTCTCAGATCTACGTCAGACTGTTGTGGTTAGCACACCATGTAA  
CCTCTGGAACACTCCACTGTACACTCATACTTTTTT

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**FIGURE 451**

MPRPFRGYFACRSRAAAPGWRWGRAEAAEVL RATGGWQWAGERGRQARLGLGLWRRGTLC LGSLTAPPGSPERGT  
GEGGGSWAPCAAGPRGARVAAGPAGPDRVNGRAWPVPRGAP AATALAAGTGVLGRSLPF

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**FIGURE 452**

ATCCTGTTGTGCTATCACCTGTTGAAGTTGCCAGTCTTAAGGAAGGGATCAATTTCTTTTCGCAATAAGAGCACT  
GGCAAAGACTACGTTCTGTACAAGAATAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGC  
CTGTTTCATAAAAGATATCGAGGATTTAGCCGGAAGTTGTTGAATGATGAAAACAACGGACTTTTGCTTTTAGA  
ACTGAATCCTCCTAACCTTTGGGACTTACAGCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAAC  
ATATCTCACTCATGCGCTGCATGGACCTCAAGTTAGGAGACAAGAGAATGGTGTGTGACCTTGGTTAATCGGTC  
TGCTTTTGCCCGTGGATGGTGGTTGCTCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCT  
CGTTTACATCAGTCATCTGCACCTCAGACCACCTGAGTTACCCACACTGAAAAGCTTGGTGGGAGAAGACCAGA  
TATTCCCATTTATGTGGAAACACAGAAAGGCTGTATTTTGAATCTGAATCAGAGCGGTGTCCAGTTGACTAA  
TATCAATGTGCGCCATTTGGAATATGGCAGCAGGTGGACAAAAATCTTCGATTCAATGATCTGTGATGGATGGTGT  
TCATCCTGAGATGGACACTTGCAATTTGTGGAGTACAAAGGTCATAAAATACTCAATACAGTAGACTGCACCAG  
ACCCAAATGGGGGAAGGCTGCCTATGAAGGTTGCTCTAATGATGAGTGATTTTGCTGGAGGAGCATCAGGCTTCC  
AATGACTTTCAGTGGTGGAAAAATTTACGGAGGAATGGAAAGCCCAATTCATTAAAAACAGAAAGGAAGCTCCT  
GAACACAAGGCTTGGCTGGTGAAGAACCTGCAACCCGAATTTATTGTCCCTTGTGGGTATTTTGTTGAATC  
TCACCCATCAGACAAGTACATCAAGGAAACAAACACCAAAATGACCCAAATGAACTCAACAATCTTATCAAGAA  
AAACTCTGATGTGATAACATGGACCCCTCGACCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCCAAC  
AGACAGCAAGGCATCATAGAGCCTCCAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTT  
GGAAATCTTGAATGCTGCTCTAGGAGATGAAATATTTCTCACTCATCTGGATAAAAGAATACTTCACTTGGGC  
TGGATTTAAAGATTACAACCTTGTGGTCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATA  
TGACTATTTGGTTGACTTTTTAGATTTATCCTTCCAAAAAGAAAGACCACAACAGAGAATCCTATAGGAAAT  
CCATAGCCGGGTGGATGTATCAGACACGTTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCA  
AACACGGCTCCAGCGGGATCCTGACATATACCATCACCTGTTTTGGAATCATTTTCAAAATAAACTCCCCCTCAC  
ACCACCCAAGTGAAGTCAATCTGATGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCAC  
ATGAAATTTCAAGAATTCACCTGATCTGATGCAAAATAAAATTTATCATTACATCTTGAACCCAGGAAGCTTAC  
AGCAAAGAGACTATGCTTTATGACGTCAGCAATAGATAATCCACGTTGCCTTTGTGATTTGTATATATAGCTTA  
CATTTGTGGACCACTACATAGCCAGATTCAAAATATTTTACTTGTTCATCCACAGTTCTTACAGAAAGAAC  
AATGAACCAATAGGAACAAATCTCTGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGG  
AAACAGGAAGAGAAAAACATCCAAGACTACAGTGAAACCTGGAATGGTCTGTTTTCGTGATATTGATGATGATTA  
AGATGCAAAATTTTCTTAGGAAAATGTGATTGTAACTAGCAATCTGTTTTACATGTTGACATTTCTAACACAC  
ACACCAGTATTTGAACCTCAAAATTTATTTCTGATTATATATGCTAGGTCTGATTCTGAAGATACAAGAATTC  
AATGTGGAAATTTGCTCCTGAAAT



**FIGURE 453**

MDENNGLLLELNPPNPWDLQPRSPHEELAFGEVQITYLTHACMDLKLGDKRMVDPWLIGPAFARGWWLLHEPPS  
DWLERLCQADLVYISHLHSDHLSYPTLKKLAGRRPDIPYVGNTERPVFWNLNQSGVQLTNINVVFFGIWQQVDK  
NLRFMILMDGVHPMDTCIIVEYKGHKILNTVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTEEWKA  
QFIKTERKKLLNYKAWLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPENLNNLIKNSDVIITWTPRGAT  
LDLGRMLKDPTDSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET  
DEDFNFPFGGYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVKNGLLWDELYIGFQTRLQRDPDIYHHLF  
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

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**FIGURE 454**

AGCCGCCCGCTAAGAAGCCGAAAG~~ATG~~TCCAGGTCGGGCGCGGCGCTGAGAAGCGGACTCCAGACAGCGACCC  
CAGATGAAGGTAAATGAATATAAAGAAAATCAAACATCGCTTATGTGCTCTGAGACCAGCACAGACTACAGTT  
TTAATAAAACAGCTAAGGCTCTATCTTGCCCCCTTTTCACCTCAGTAATTACCAGCTAGACCAGCTTATGTGCCCC  
AAATCCCTATCAGAAAAGAATCTAACAATGAAGTGGCGTGAAGAAGACTAAAATAAAGAAAACCTGCAGAAAG  
ATTATACCTCCAAGATGAAAACACATCTTCCAAGGCAGAATCCACGCTGCAAAATTCATCTCAGCTGTGTTCAT  
ACTGAAAGTAACAAGCTACAAACCAAGAAACGGCAGATGCGATGAATCTCAGTGTGATGTGGAAGTAGTCAG  
GATGGAGACAGTGATGAAGATACCCACAGCCCTGGATTTTTCGGGATTGTACCCCTACGAAAGGAAGAGACTG  
AAGAACATATCAGAAAACGCAGACTTTTTTGTCTCTTTCAGTGTCTGAGTCTGCTGCAAGACTCCGTGAAATG  
ATAGAGAAGAGACAGCCCTCTAAATCCAAAAGAAAGAAGCCTAAGAGAGAAAATGGGATTGGATGTAGAAGGTCA  
ATGCGATTACTAAAAGTTGATCCTTCGGGAGTTTCATTACCAGCAGCTCCAACACCCGCCGACATTAGTAGCAGAT  
GAAACTCCTTTGTTACCTCCTGGGCCCTTTAGAAATGACTTCTGAAATCAAGAAGACAACAATGAACGATTAA  
GGATTCTGCACACATGGGCAGGAATGAGCAAGCCAAGTAGTAAGAACACTGAGAAGGATTATCTAGCAATAAA  
AGCTACAAAGCCAATTTAAATGGCATGGTCATTAGTGAAGATACCGTTTACAAAGTTACCACAGGCCAATATTC  
TCTATGGCTCTCCATCCATCAGAAACTAGAACTTTGGTAGCAGTTGGGGCCAAATTTGGGCCAAGTTGGACTTTGT  
GATTTGACCAGCAACCTAAAGAAGATGGAGTTTATGTTTTTACCCCCATAGTCAGCCAGTTAGCTGTCTTTAC  
TTCTCACCCGCCAATCCGGCCACATAGTGTCACTGAGCTATGATGGCAGTTACGCTGTGGGGATTTTTCCAGG  
GCTATTTTTGAAGGGTGTATAGAAATGAAAGAAGTAGCTTTTCTCCTTCGACTTCTTGGCAGAAGATGCCTCC  
ACTTTAATAGTAGGACACTGGGATGGAAATATGTCACTGGTGGATAGACGGACACCTGGAACTTCTTATGAGAAA  
CTTACCAGTTCTTCTATGGGAAAAATAAGAACGTTCATGTCCACCAGTCGCATAGACAGTATTTTATCACTGCC  
GGATTGAGGGTACTCATATTTATGATGCAAGGCGATTGAATTCAGGAGAAGTCAGCCCTTGATTCTTTGACT  
GAACATACAAAGACATTGCTTCGCCATTTTTTCACTCTTACTGGTAACAGAGTGAACCATATGTGCTGAT  
TGTAATCTGAGAAATTTTGACAGCAGCTGTATATCTTCTAAGATTCGCTCCTCACCACCATCAGGCACAACACT  
TTCCTGGGCGATGGCTGACCAGGTTCCAAGCCATGTGGGATCCTTAACAAGAAGACTGTGTCATAGTTGGCAGC  
ATGGCCCATCCACGACGGGTAGAAATCTTCCATGAGACAGGAAGAGGGTGCAATTCGTTTGGTGGAGAATACCTT  
GTCTCTGTGTGTTCCATCAATGCCATGCACCAACTCGGTATATTTTGGCTGGAGGTAATTCACGCGGGAAGATA  
CATGTTTTTATGAATGAAAAAGCTGCT~~TGAG~~TTTTTGGTTTAGGAACATCAATTTGTTCAAATTGACCACTGTCT  
AAGGAGCCTTAGTAATCGGCGTGCCTTAGTGTGTTTATGTGGTAATGTGTTACATTAGCAATATAACATTGTTT  
TATTAATAAGACTATAAGAAGAGTGTACTTTTAGTAAGGGAGAAGTCTTGGAGGGTGTCTCTCGAGGACGGGA  
GGGAATTTGAGGGGAGGCTGAGGTGCCGTGAGGACTTTTTTTTTTTTTTTTTTTTGGATGGAATTTTGCTCTT  
GTTGCCAGGCTGGAGTGCAATAGCGCGATCTTGCTCACCAGCAACCTCCGCCCTCCAGGTTCAAGCGATTCTCC  
TGCCTCAGACTCCTAAGTAGCTGGGATTACAGGCACCTGCCACCAAGCCTGGCTATTTTTTTGATTTTTTAGTAG  
AGATGGGGTTTTCAATGTGTGGCCAGGCTGGTCTCGAGCTCCTGACCTCAGTGATCTGCCCGCCTCGGCCTCCA  
AAAGTGTGGAATACAGCGGTGAGGCCACCATGCTGCGCATCAGAACCTGTAATCAAGACAGTATGTTGAGAAA  
TTCTAACATTATAAATTACAAGCTTTGACTATTAAAGTTTTTGTGATCT

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**FIGURE 455**

MSRSGAAAEKADSRQRPQMKVNEYKENQNIAYVSLRPAQTTVLIKTAKVYLAPFSLSNYQLDQLMCPKSLSEKNS  
NNEVACKKTKIKKTCRRIIPPKMNTSSKAESTLQNSSSAVHTESNKLQPKRTADAMNLSVDVESSQDGDSDEDI  
TPALDFSGLSPIYERKRLKNISENADFFASLQLSESAARLREMIKRQPPKSKRKKPKRENGIGCRRSMRLKVDI  
SGVSLPAAPTPTLVADETPLLPPGLEMTSENQEDNNERFKGFLHTWAGMSKPPSSKNTKEGLSSIKSYKANLNG  
MVISIEDIVYKVTTPGIFSMALHPSETRTLVAVGAKFGQVGLCDLTQQPKEDGVYVFPHPSPQVSCLYFSPANPAH  
ILSLSYDGTLCGDFSRAIFEEVYRNERSSFSSFDLAEDASTLIVGHWDGNMSLVDRRTPGTSYEKLTSSSMGK  
IRTVHVPVHRQYFITAGLRDTHIYDARRLNSRRSQPLISLTEHTKSIAAYFSPLTGNRVVITCADCNLRIFDS  
SCISSKIPLLTITIRHNTFTGRWLTRFQAMWDPKQEDCVIVGSMAPRRVEIFHETGKRVHVSFGGEYLVSVCSINA  
MHPTRYILAGGNSSGKIHFVFMNEKSC

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FIGURE 456

TGGCGCCGCCGCCGCTCGCCGCC**ATTG**ACCTAGGACCCCTTGAACATCTGTGAAGAAATGACTATTCTGCATGGAG  
GCTTCTTGCTGGCCGAGCAGCTGTTCCACCCTAAGGCACTGGCAGAATTAACAAAGTCTGACTGGGAACGCTGTG  
GACGGCCCATCTGTGAGGCCCTTAAGGGAGATCTCCTCGGCTGCAGCACACTCCAGGCCCTTTGCTGTGGAAGAAGA  
AAGCCCTGATCATCATCTGGGCCAAAGTTCTGCAGCGCACCCCGTGACCCCGTCGACACAGAGACACCGGTGGC  
AGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCTCTTCTGAGCTGCTCAAAAT  
CCCTTGAAGACTTCTGGACTCTTTATCCAGCTCCTGTATGGCCCTTGCCACCAACCATCTGCCATGCAGAAGTATGAGC  
GCTTTCTGGAACATCTGACGCTTGACATCTCTGCCGAAGACGTGGCCCTTCTCTCTGGACATCTGGTGGGAGGTGA  
TGAAGCACAAGGGTCACCCGACGACCCCTGCTCTCCAGTTTAGTGCAATGGCCCATAAGTACCTGCCTGCCT  
TAGATGAGTTCCCCATCTCTCAAAGAGGCTTAGGTGAGACCCAGACCGCTGCCCCACCATGCCCCCTGTTGGCCA  
TGCTGCTCGCGGGCTGACACAGATCCAGAGTCGGATCCTGGGCCCGGGAGGAAGTGCTGTGCGCTGGCCCAAC  
TGGCTGACATGCTGACTGTGTTTGGCCTGACAGAGGACGACCCCGAGGAGGTGTCTGCAACCGTGATCTGGACA  
AACTGGCCACCGGTGATCTCTGTGTGGAACCTGGACACCCAGAATCCCTACCACAGCAGCGCTGGCAGAGAAGG  
TGAAGAGGCGCAACCGGATGTCAGGCTGACCTCGCTGGCCAAACTCCCCAGTGAGACCATTTTCGTGGGCTGCG  
AGTTCTTGCAACACCTGCTCGGGAGTGGGGGGAGGAGTGTGACAGGCCGTGCTCCGACGACCCAGGGGACAAGTT  
ACGACAGCTACCGGCTGTGGCAGCTGTGACTTCTTCCAGCAGAAGCGGACGCTTACTTGAACCGCACCAAGCT  
TGTCAAAGGAGGACAGGAGGTGGTCTCTGAGCTGGCGGAGTGTGTGAGGGACTTCTTGAGGAAAACGAGCACGG  
TGCTGAAGAACAGGGCCCTGGAGGATATACAGCTTCCATTGCCATGGCCGTCTACCGACAGAGATGGACCGGC  
ATATGGAAGTGTGCTACATTTTTTGCCTCTGAGAAGAAGTGGGCCCTTCGAGCAGTGGGTAGCCCTGCTGGGGA  
GTAACAGGGCCCTCTTCCGAGAGCCAGACTTGGTGTGAGGCTGCTGGAACAGTGATAGACGTACAGCACAGCTG  
ACAGAGCCATCCCTGAGTCTCAGATCCGCGAGGTGATCCACCTGATCTCTGAAATGTTACGACAGCTCTCCCTGC  
CAGGTAATAAAGTCTCTGAGGTATCTGCGTCTCTGGGGCGAAAGGGCCCTCTCTGAAAAGTGTGCTGGCTT  
ATGTGAGGGTTTTTCAGGAAGACCTCAATACAACCTTTTAACACGCTCACTCAGAGTGCCTCCGAACAGGGCTTGG  
CAAAAGCTGTGGCCCTCCGTGGCCCGCTGGTATAGTGACCCCGGAAGTACGGTGAAGAAAATGTGCAGCCTGG  
CTGTGCTCAATCTCGGCACCAACAAGTTCCTGGCCAGATTCTCACTGCCTTCCCTGGCCCTTAGGTTTGTGGAAG  
TGACGGGTCCCAATTATCTGCCACTTTCATGGTGTATGCCTCAAAGAAACCGCTGTGATGAAGTTCTCTACAC  
CCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAACCCCAAGGATCCAGTGG  
CTGCTCTTCTTGAGCCAGCAGAGGTGCTGAAGGAATTTGCTCTGCCTTCTTGAGGTTAGATTTGAAGAGGTAG  
ACCTCAGTCTGAGGATCTTCATCCAGACTCTAGAGGCCAAACGCGTGGCCAGGAAATACTGGCTCCACAGCTGTCT  
CCCCGTTTCCACTCTCTCTCAGCTTGTGCCAGCTCTTGACCCGCTTTAGAAATACTGGCCGCTTCCCAAGGAGA  
AGCGGTGCCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCTCTGGAGCTCCTGTGTGAGATTGTATACGCCA  
ATGCTGAGACCTTCTCCCGGATGTCTGAGTCAAGTCCCTGTCTCTGGCTCCACCGCAAGTTGAACAGCTAGACT  
GGACTGTGGCCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACCTCAAGTGTGAGGTGACGACCACTCTTTTGAGA  
TCTGTAAGCTTTTCAAGACGAGTGGACCTCCAGGCCACCCAGGGTACGGGCTGGCACGGGGCTCTTGGCCT  
GGATGGAGTGTGCTGCGCTCTCCAGCGGCATCTCGAGAGGAGTGTGTCTCTTGTGGTGGGACGTGGGCAATC  
CTGAGGAGGTACGCTGTTCAGCAAAGGCTTTCTGGTGGCCCTGGTGCAAGTCACTGCTTGGTGCAGCCCTCAGG  
AGTGGCAGCGCTTACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCTCCTATGTCCCTTATAGCTTGAAT  
ATATTAGTTTGTTCCTCTGCTCAACCTGAAGCCCTTTGCCAGGAGTTGCAACTCTCCGCTCTCTCTCTGAGGA  
CTTTTCAGTTTCTGCGACCACTAGCTGTCGTAATTGGCTTCTCTGGAAGACGATGCTTGGTGCAGCCCTCAGG  
TCTGTGGCAGTCTGACCGCCCTCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCTTGGGTTCAAGGACCAAG  
AGCAGGACCTGACCCAGGAAGCCCTGTTTGTATTACACCCAGGTGTTCTGCCATCTGCATCATGGCCATGC  
TCCACCCGAGGCTCTGTGAGCCACTCTACGTTTTAGCCTTGAAACCCCTCACTGCTATGAGACTTTGAGCAAGA  
CCAACCCCTCTGTGACGTCTCTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCCATTGCTGAGGGCATG  
GCCCTGAAGAACGGCGCCAAACCTGTTGCAAGAAGTGT**GAG**CTTGGCGTGGGAGCTGGGCCCTTA  
CATGGCGGCTCTGCAGAAGATCAGCGATTCTTACCTGTGCGGGAGCGAAAAAGCTGGGCTTCAACATGGCAGGT  
CTGTAGGGGTAGACCCGAGACCGCTTGACTTTACAGTTATGTGAAACTGTCCACAAAAAGTCATGGCAATAATG  
GTGTAAGAAAAATGTTTCTTGGTATTGTACGTACAAACTATCATAAAAATCTCCTCTTTCGCATCTCAA  
AAAAA

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**FIGURE 457**

MDLGPLNICEEMTILHGGFLLAEQLFHPKALAELTKSDWERVGRPIVEALREISSAAHSQPFawkkkaliiIWA  
KVLQPHPVTPSDTETRWQEDLFFSVGNMIPTINHTILFELLKSLEASGLFIQLLMALPTTICHAELERFLEHVTV  
DTSAEDVAFFLDIWEVVMKHKGHPQDPLLSQFSAMAHKYLPADEFPHPPKRLRSDPDACPTMPLLAMLLRGLTQ  
IQSRILGPGRKCCALANLADMLTVFALTEDDPQEVSA TVYLDKLATVISVWNSDTQNPYHQQALAEKVKEAERDV  
SLTSLAKLPSETIFVGCEFLHHLLREWGEELQAVLRSSQGTSYDSYRLCDSLTSFSQONATLYLNRTSLSKEDRQV  
VSELAECVRDRLRKTSTVLKNRALEDITASIAMAVIQQKMDRHMEVCYIFASEKKWAFSDEWVACLGSNRALFRE  
PDLVLRLETVIDVSTADRAIPESQIRQVIHLILECYADLSLPGKNKVLAGILRSWGRKGLSEKLLAYVEGFQED  
LNTTFNQLTQSASEQGLAKAVASVARLVIVHPEVTVKKMCSLAVVNLGTHKF LAQILTAFPALRFVEVQGPNSSA  
TFMVSCLEKETVVMKFSTPKEEKQFLELLNCLMSPVKPQGIPVAALLEPDEVLEKFLPFLRLDVEEVDLSLRIFI  
QTLEANACREEYWLQTCSPFFLLFSLCQLLDRFSKYWLPKEKRCLSLDRKDLAIHILELLCEIVSANAETFSPD  
VWIKSLSWLHRKLEQLDWTVGLRLKSFFEGHFKCEVPATLFEICKLSEDEWTSQAHPGYGAGTGLLAWMECCCVS  
SGISERMLSLLVVDVGNPEEVRLFSKGFVLVALVQVMPWCSFQEWQRLHQLTRRLEKQLLHVPSLEYIQFVPLL  
NLKFFAQELQLSVLFLRTFQFLCSHSCRNWLPLEGWNHVVKLLCGSLTRLLDSVRAIQAAAGPWWQGPQEDLTQEA  
LFVYTQVFCHALHIMAMLHPEVCEPLYVLALETLCYETLSKTNPSVSSLLQRAHEQRFLKSTAEGIGFEERRQT  
LLQKMSSF

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**FIGURE 458**

CGACGCGGGAGCCGCACGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCACGCGGGGCCGTTGAGGCGGAG  
CCCTCAGTTCCTCCGGCCAGGACACGGTCTGGGCCGCCGAATCTCCGGCCGAAGAGCGCGCGGCAGCGCGGGGAA  
AAAAATGAAGAATGAAATTGTCTGCCGTTGTCTTCTTTTTCACAAAGGCTAGTTCGAAAAACATGATAAGTTGAAAAA  
AGAGGCAGTTGAGAGGTTTGTCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAAATCACTGGTATCCAGA  
AAAAACCATCGAAAGGACAGGCCTACAGATGTATTCTGTGCAATAAAATTCAGAGAGTTGATCCTGATGTCTCGAA  
AGCCTGTGAAAAACAGTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG  
TGAGGTGTGCTGTCTGATAGAGATGGGGTTTACCATGTTGGCCAGACTGCTCTCAAACCTCTGACCTCGTGATCCG  
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCCGCCCTCCCTTTTGTATTATGTA  
TGGAGAGAAAAACAATGCATTCTATTGTTGCCAGCTTTGAAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA  
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTACGGATCCTCTTCTTCAGATGAAGAAACAAGTAA  
GGAAATGGAAGTGAACCCAGTTCCGGTGACTGCAGCCGCAAGTCTGTGTACCAGATTTCAGAACTTATATTTCC  
ACCTCTTCCAATGTGGCACCCCTTTGCCAGAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA  
TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCAGTGACATG  
GGTACCTCCTCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACTAACTTGG  
TTTTTGATTGTGTGGTGTATGTTGAGAAAAAGGTAGAAATAAACCTTACTACACATTAAAGTTAAAGTTCTT  
ACTAATAGTAGIGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTCTT  
AAAAAATATATGCATTTAGATATTGATATAGTTTGAGAAATTTTATTAAGTTAGTCAAGTGCCTAAGTTTTTA  
ATATTGGACTTGAATTTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCGTGAGAAGTGGACGATTTG  
TTTTAGCCCTTTGAGAAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTGCG  
TTGTTAAGAGAATTGTGTGAATCATGTAGTTGCAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAA

**FIGURE 459**

MKNEIAAVVFFTRLVRKHKLKKEAVERFAEKLTLILQEKYKNHWYPEKPSKGQAYRCIRVNKFQRVDPDVLKA  
CENSILYSIDLGLPKELTLWVDPCEVCCRDRDGVSPCWFDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG  
EKNNAFIVASFENKDEKDEISRKVTRALDKVTSYHSGSSSSDEETSKEMEVKPPSSVTAAASPVYQISELIFPP  
LPMWHPLPRKKPGMYRGNGHQNHYPPFVFGYPNQGRKNKPYRPIPVTWVPPGMHCDRNHWINPHMLAPH

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**FIGURE 460**

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAAACCCT  
GAGATGGCCTCCAGTCTCAGGCAGCAGTCTCTGCCCGGCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC  
ACCGTCTGCCAGGACCCAAAGGAGGCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTCTGAGAACCCGAGGAATGGC  
GAGGATCAGATCTGCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAAGGAAGCCGTCTTCGAACCTCAG  
GAGAAGGCTCACCCGAGGTGGCTGAGGCTGGAATTGGGTGCCCTTTGCGAGGTGCGGCTGCTCTTCAAGGGA  
AGCCCCAGTCTGTGCAAGAGCATGAGTCACTCCAGACCTCCACCTAAACCTGCTGTGGGGTTCATGAAA  
CAGTGGAAAGGCCCGGCTGGGCTGTGGCCTGGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTGAGACTGCAG  
CTGCAGGCAGCCGTGGAAGTGGCGGGGACCTGGAGGTGCAATTGCTACCGGGCACCCCTGCTCCGAGAGCCAGGAG  
GAGCTGGCCCTCGCAGCACTTCATGAAGGAGAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTGAGAAC  
ATTGTTGCTGTCTTCAACAAGGAGGTGGAGGCCCTCCACCTGGCCCTGGCCACCTCTATCCACAGAGCCAGCTG  
GACCGTGAGCGCATCTGAGCTTGAGCAGAGGGTGGTGAGCTTCAGCAGACCCCTGGCCCAAGAAAGACCAGGCC  
CTGGGCAAGCTGGAGCAGAGCTTGCGCCTCATGGAGGAGGCCCTCCTTCGATGGCACTTTCCTGTGGAAGATCACC  
AATGTCAACAGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCCTCTTCCCCAGCCCTTCTACACTGCC  
AAGTATGGCTACAAGTTGTGCCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAGAGAACCCTCTGTGCTCT  
TTCATCGTGATCATGAGAGGGAGTATGATGCGCTGCTGCCGTGGCCTTCCGGAACAAGGTCACTTTCATGCTG  
CTGGACCAAGAACACCGCTGAGCAGCCATTGACGCCCTTCGGCCTGACCTAAGCTCAGCGTCTCTCCAGAGGCC  
CAGAGTGAAACCAACGTGGCCAGTGGATGCCCACTCTTCTTCCCCCTCAGCAAACTGCAGTCAACCAAGCAGGCC  
TACGTGAAGGACGACACAATGTTTCCATGTCATTGTGGAGACCAGCACTTAGGGTGGCGGGGCTCCTGAGGG  
AGCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA  
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTGCACTTCCGGCTGGCCATCTGGTTAGGATGGCAG  
GACGTGGCTGGGCCCAAAAGGCCAAAGGGTCCAGAAGGAGACAGGCAGAGTGTCTCCCTCTGCACGGACCATG  
CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTACCAAAATGAGAAGAAAATGGA  
ACCAGGCTTGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGAGGGCCGCCAGGGAGA  
CCTGGACACAGGCTGCTCTCTTTTCTCCAGGGTCAGAAACAGGACCGGGTGGAAAGGATGGGGTGCCAGTTTG  
AATGCAGTCTGTCCAGGCTCGTCAATTGGAGGTGAACAAGCAAAACCCAGAGGGCTCCACTAGGACTTCAAATTTGG  
GGTTGGATTGAAGACTTTTAAGTTTCTTCCAGCCCAAGAGTCTCTCATTTAGGCCCTCTGGCCCCAGGTGAG  
TCCTAGAGCTACAGGGGTTCTGGAACATTACAGGAGCTTCTGTCTCCCACTCTCTCACTCACCTTCAGTAACC  
CCCCTGGACTGACCTGTCTCACAGGGCACCTGCCACCCCTGGCCCTGGCAGCTCAGTTCCCCAACACGCAAGGAG  
CACACCCAGCCCCACATCTGTGCTCCATCAGCTAAACACCACGTCACTTCATGCAAGGTGAAACCCAGTCACT  
GTAGCTCCCAAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACCCTTCTCTTCTGCTAGAGGCC  
CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAAGTGAAGGATCCACTTCTTTCAGCAGACTGATCAG  
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAGAAATAATTTTGAATCTCTTTCGAAGTTTCTCTAAAAA  
AAAAAAAAAAAA



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**FIGURE 461**

MASSSGSSPRPAPDENEFPGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRLRTQE  
KAHFEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL  
QAAVEVAGDLEVD CYRAPCSSESQEELALQHFMEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD  
RERILSLEQRVVELQOTLAQKDQALGKLEQSLRLMEEASFDTFLWKITNVTRRCHESACGRIVSLFSPAFYTAK  
YGYKLCRLRYLNGDGTGRTHLSLFI VIMRGEYDALLFPWFRNKVTFMLLDQNNREHAIDAFRFDLSSASFQRPQ  
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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**FIGURE 462**

AGACGCAAGACGCCGGGCCTACAGCGGGAGCGTGAGGAAAGCCGTGCGTTGCGTTCCAAGGCATCTGTGAGCCCG  
CGGAGTATACACC**ATG**AGCAAAGCTCACCCCTCCCGAGTTGAAAAAATTTATGGACAAGAAGTTATCATTGAAATT  
AAATGGTGGCAGACATGTCCAAGGAATATTGCGGGGATTTGATCCCTTTATGAACCTTGTGATAGATGAATGTGT  
GGAGATGGCGACTAGTGGACAACAGAACAATATTGGAATGGTGGTAATACGAGGAAATAGTATCATCATGTTAGA  
AGCCTTGGAACGAGTAT**TAA**AATAATGGCTGTTTCAGCAGAGAAACCCATGTCTCTCTCCATAGGGCCTGTTTTACT  
ATGATGTAAAAATTAGGTCATGTACATTTTCATATTAGACTTTTGTAAATAAACTTTGTAAATAGTCAAAAT  
GCTTTCAGATGTTCTGAATATAGAATATCAGCTCTCATTCCAGTTTTTCTAACATGAATTTTCTGGTTGAC  
ATTGATTTCAAAGGGTTTTATGCATTAAAGTGAAGAATCTTATTAAATGCGAAAAAAAAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 463**

MSKAHPPELKKFMDKKLSLKLNGGRHVQGILRGFDPFMNLVIDECVEMATSGQQNNIGMVVIRGNSIIMLEALER  
V

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**FIGURE 464**

CGGGAGGGCGGACAGCGGCTGCAGCGTTGGTAGCATCAGCATCAGCATCAGCGGCAGCGGCAGCGGCCCTCGGGCGGGG  
GCCGGCCGGACGGACAGGCGGACAGAAAGCGCCAGGGGCGCGCTCCCGCCCGGGCGGCC**ATGG**AGGGGCGCTC  
CTTCGGCGCGGGCGCGCAGGGGCGGCCCTGGACCCCGTGAGCTTTGCGCGGCGGGCCCCAGACCCCTGCTCCGGGT  
CGCGTCTCTGGGTGTTCTCCATCGCCGTCTTCGGGCCATCGTCAACGAGGGGTACGTGAACACCGACAGCGGCC  
CGAGCTGCGCTGCGTGTTC AACGGGAACGCGGGCGCCTGCCGCTTCGGCGTCGCGCTGGGCCTCGGAGCCTTCCT  
CGCCTGCGCGCCTTCCTGCTGCTCGATGTGCGCTTCAGCAAATCAGCAGCGTCCGCGACCGCCGGCGCGCGGT  
GTTGCTGGACCTGGGCTTCTCAGGACTCTGGTCCTTCCTGTGGTTCGTGGGCTTCTGCTTCCTACCAATCAGTG  
GCAGCGCACGGCGCCAGGGCCGCCACGACGAGCGAGGCGGGGACGCGGCGCGGGCCGATCGCCTTCAGCTTCCTT  
CTCCATCCTCAGCTGGGTGGCGCTCACCGTGAAGGCCCTCGACGGGTTCCGCTGGGCACCGACATGTCACCTCT  
CGCCACCGAAACAGCTGAGCACCGGGGCGAGCCAGGCCATACCCGGCTATCCGTTGGGCAGCGCGTGGAGGGCAC  
CGAGACCTACCGAGCGCCGCCCTTCACCGAGACCCCTGGACACAGCCCCAAAGGGTACAGGTGCCCGCTACT**TA**  
**GGCGGCTGGCAGGCACAGACCGGGCTCCAAGGCCACCCACCAACGCAGGCCCGAGGGTCTCCGGACCTCCCT**  
GGGTCTTCAGCTCAGTGCCGCGGACAGAGTAGGTGGCGCTTTGCGCCATCCGGGGCCAAGAGGGGTGGACC  
CGCGTGTCTGGGCTGCCCTGCCAAGTTCGCCAGTCCCTCAGCACCTGGCCCCAGGACTGAGGTCTCTGAGAAGG  
GGATAGCACTGCCAGGACGTGTGCTCCTAGCCTGGAATGGACTGGCTGGGGAAGGCTTCCCTCTTGGGCCA  
CACCTGCTCACTCTGGGGTTGGGGGTCAGCTGCCCTCTACGATCAGGTGCAGGGGCTGCCAGGACAAGCGGG  
GGCAGGGGAAAGACACCACCTCGCCCCAAGACTGGGGATCCTGGCCACTGTTCCATCCCATGTCCCTGTGGGT  
AGTGACTGTCTGTTCTGTGATGGTGGTGCGTCCCGTCCGAGCCACTCTCCACTTCTCTCACAGGCTGCTAG  
AACAGCCCGAGCCTGTCACTGTTGTGATCATGGTCCAGTCTTCGGGTTTCACCTCCTAGTACTCCAAAGCTGCT  
CCTCTCTGTGGCCCCGGCCCCCTGCCAGGTGTGGGTGGTCTGGCCAGGAAGGCACAAGGTAGCTGTGGGCCA  
AGACACCGACCCCTGTCTAGCCCTTCAGTAAGACCTTGCCAGGAGAGGAGAAGGATCCCTGGGTGCCAGGCAAGA  
CAAGCCCCCTCAGCAGGAGAGAGGCCAGAGGCTCCAGCTGGCCACCGTGCCCCACAAGATGGCCCCCTGTGTGGTT  
CCCTTTACCTTGGGTTCCTGGCCAGTCCCTGCCTCTCCACCTGCACCTGCTTCCIGGCCAGTCCCAGGTGG  
AGTCCCTCTGCATAGCTGACTACTCATGCAATTGCTCAAAGCTGGCTTTACATTAAGTCAACACCAACCTGGT  
TGCCACATTTCATCAGACAGACCTCCCTCTGAGAGATGCAAGTGAAGTACAACTGTTACATTGATAGCTAGAC  
CCAATTCTGTGTGGATATTTAAGTGAACATGTTTACAATTTTGTATATATCACTCTCCCTCTCTCTGAAAGAC  
CAGAGATTGTGTAATTTTCAAGTGTCCATGTTCGGACTGCACCTTCTTTACAATAAAGACTGTAAGTGAAGTGAAGT  
GTGAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 465**

MEGASFGAGRAGAALDPVSFARRPQTLLRVASWVFSIAVFGPIVNEGYVNTDSGP<sub>ELRCVF</sub>ENGAGACRFGVALG  
LGAFLACAAFLLLDVR<sub>FQQ</sub>ISSVRDRRRRAVL<sub>LDL</sub>GF<sub>SGLWS</sub>FLWFVGFCFLTNQWQRTAPGPATTQAGDAARAAI  
AFSFFSILSWVALTVKALQR<sub>FRL</sub>GT<sub>DMS</sub>LFATEQLSTGASQAYPGYPVGSGVEGTET<sub>YQSP</sub>PF<sub>TET</sub>LD<sub>TS</sub>PKGYQ  
VPAY

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**FIGURE 466**

ATACGACTACACCTGCTCCGGAGCCCGCGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCTTCATCTCACGC  
GAGCCCGCGTCCCGCGCGTGCGCCCGCGCGCAGCCCGCCAGTCCGCCGGAGCCCGCCAGTCGCCCGCGCTGC  
ACGCCCGGGTGAAACCTCTGCCTCGCTGGGACAGAGGGCCCCGAGCGCTC**ATGC**TTTTCCGCCATCTACACAG  
TCCTGGCGGGAGCTGTGTCTCGCCGCTCCTGGTGAACCTCTGCTGCCCATACTTCTCCAGGACATAGGCTACT  
TCTTGAAGGTGGCCCGTGGGCCGGAGGGTGCGCAGCTACGGGCAGCGCGCGCGCGCGCACCATCTCGCGGG  
CGTTCTTGAGAAAGCGCGCCAGACGCCACAAAGCCTTTCTGTCTTCCGCGACGAGACTCTCACCTACGCGC  
AGGTGGACCGCGCAGCAATCAAGTGGCCCGGCCCTGCACGACCACCTCGGCCCTGGCCAGGGAGACTGCGTGG  
CGCTCCTTATGGGTAAAGAGCCGGCTACGCTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT  
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGCTCGCGGGCGAAGGTGCTGCTGGTGT  
CGCCAGAACTACAAGCAGCTGTGCAAGAGATATGCCAAGCCTTAAAAAGATGATGTGCCATCTATTATGTGA  
GCAGAACTCTAACACAGATGGGATTGACTTTCTCGGACAAAGTGGATGAAGTATCAACTGAACCTATCCAG  
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCGCTTATACATTTATACCTTCTGGAACCAAGTCTTCCAA  
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCCTCACTTTTGAAGCGGATTGAAGGCAGATG  
ATGTCATCTATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACCGGATGATTGTGGCTG  
GTGCTACTCTTGCCCTTGGGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAATACACGCTCACTG  
TCATTGATATATCGGTGAAGTGTCTCGGTATTTATGCAACTCACCACAGAAAACCAATGACCGTGATCATAAAG  
TGAGACTGGCCTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTGGGGACATATGCA  
TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGCTGTGGAA  
GAGTAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC  
GTGATGAAAATGGATATTGCGTCAGAGTTCCTCAAGGTGAAGTTGGACTTCTGGTTTGGCAAAATCACACAACCTTA  
CACCATTAAATGGCTATGCTGGAGCAAAAGGCTCAGACAGAGAAGAAAAAAGTGAAGATGCTTTAAGAAAGGAG  
ACCTCTATTTCACAGTGGAGATCTCTTAATGGTTGACCATGAAAAATTCATCTATTTCACGACAGAGTTGGAG  
ATACATTCCGGTGGAAAGGGGAAAAATGTGGCCACCACCTGAAGTTGCTGATACAGTTGGACTGGTTGATTTGTCC  
AAGAAGTAAATGTTATGGAGTGCATGTGCCAGATCATGAGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG  
AAAACCATGAATTTGATGGAAGAAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCCGGT  
TTCTAAGAATACAGGACACCATTGAGATCACTGGAACCTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGCT  
TTAACCCCTGCTGTCATCAAAGATGCCTTGATTTCTTGGATGACACAGCAAAATGTATGTGCTATGACTGAGG  
ACATCTATAATGCCATAAGTGCTAAAAACCTGAAACTCT**TGA**ATATTTCCAGGAGGATAAATCAACATTTCCAGAA  
AGAAACTGAATGGACAGCCACTTTGATATAATCCAACCTTAATTTGATTGAAGATTGTGAGGAAATTTTGTAGGAA  
ATTTGCATACCCGTAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTAGAGATTATT  
ATTTTTAGTGTGACCTACTGTTTGTATTGCAAACTGAGCTTGTGGAGGGAAGGCATTATTTTTTAAATACT  
TTAGTAAATAAATGAAC

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**FIGURE 467**

MLSAIYTVLAGLLFLPLLVLNLCPPYFFODIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLLLFR  
DETLTYAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWLWLGLVKLGCMACLNYNIRAKSLLHCFQCC  
GAKVLLVSPELQAAVEEILPSLKKDDVSIYYVSRTSNTDGIDSFLDKVDEVSTPIPIESWRSEVTFSTPALYIYT  
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPPFYHSAALLIGIHGCIVAGATLALRTKFSASFWD  
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNLGRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA  
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKKL  
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG  
MASIKMKNHEFDGKKLFQHIADYLPYARPRFLRIQDTIEITGTFKHKRMTLVEEGFNPAVIKDALYFLDDTAK  
MYVPMTEDIYNAISAKTLKL

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**FIGURE 468**

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGCTTCTCCCTTCACTTCACGC  
GAGCCCGGCGTCCC GCCGCTGCGCCCCGGCGCAGCCCGCCAGTCCGCCGGAGCCCGCCAGTCGCGCGGCTGC  
ACGCCCGGGGTGAACCTCTGCGCTCGCTGGGACAGAGGGCCCCGCGAGCCGCTACGCTTTCCGCCATCTACACAG  
TCCTGGCGGGAGCTGCTGTTCCTGCCGCTCCTGGTGAACCTCTGCTGCCATACTTCCTCCAGGACATAGGCTACT  
TCTTGAAGGTGGCCCGCTGGGCCGAGGGTGCAGCTACGGGCAGCGCGCGCCGGCGCGCACCATCTCGGGG  
CGTTCCTGGAGAAAGCGCGCCAGACGCCACAAAGCCTTTTCTGCTTCCTCGCGACGAGACTCTACCTACGCGC  
AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGCGCTGCAGACCACCTCGGCCCGCCAGGAGACTGCGTGG  
CGCTCCTTATGGGTAACGAGCCGGCTACGCTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT  
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGTCTGGGGCGCAAGGTGCTGCTGGTGT  
CGCCAGAACTACAAGCAGCTGTGCAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGCCATCTATTATGTGA  
GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCA  
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCGCTTATACATTTATACTTCTGGAACCAAGGTCTTCCAA  
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCCCTCACTTTGTGAAGCGATTGAAGGCAGATG  
ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACGGATGTATTGTGGCTG  
GTGCTACTCTTGCCCTGCGGACTAAATTTTCAGCCAGCCAGTTTGGGATGACTGCAGAAAATACAAGCTCACTG  
TCATTCAGTATATCGGTGAAGTCTTCGGTATTTATGCAACTCACCACAGAAACCAATGACCGTGATCATAAAG  
TGAGACTGGCAGTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTTGGGGACATATGCA  
TCTATGAGTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTTATGCGAGAAAAGTTGGTGTGTTGGAA  
GAGTAAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC  
GTGATGAAAATGGATATTGCGTCAGAGTTCCTCAAGGTGAAGTTGGACTTCTGGTTTGGCAAAATCACACAACCTTA  
CACCATTTAATGGCTATGCTGGAGCAAGGCTCAGACAGAGAGAAAAAAGCTGAGAGATGCTTTTAAAGAAAGGAG  
ACCTCTATTTCACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTCACTCTATTTCACGACAGAGTTGGAG  
ATACATTCGGTGGAAAGGGGAAATGTGGCCACCACCTGAAGTTGCTGATACAGTTGGACTGGTGGATTTGTGCC  
AAGAAGTAAATGTTTATGGATGTCATGTGCCAGATCATGAGGGTCGCAATTGGCATGGCCTCCATCAAAATGAAAG  
AAAACCATGAATTTGATGGAAAGAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCCGGT  
TTCTAAGAATACAGGACACCAATTGAGATCAGTGGAACTTTTAAACACCCGCAAAATGACCCCTGGTGGAGGAGGCT  
TTAACCTGCTGTATCAAGATGCTTGTATTCTTGGATGACACAGCAAAATGTATGTGCTATGACTGAGG  
ACATCTATAATGCCATAAGTGCTATAAACCTGAAACTCTGAATATTCCAGGAGGATAACTCAACATTTCCAGAA  
AGAACTGAATGGACGCCACTTGATATAATCCAACCTTAATTGATTGAAGATTGTGAGGAAATTTGTAGGAA  
ATTTGCATACCCGTAAGGGAGACTTTTTTAAATACAGTTGAGTCTTTGCAAGTAAAAAGATTAGAGATTATT  
ATTTTTCAGTGTGCACTTACTGTTGTATTGCAAACTGAGCTTGTGGAGGGAAGGCATTATTTTTTAAATAC  
TTAGTAAATTAATGAAC



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**FIGURE 469**

MLSAIYTVLAGLLFLPLLNLCCPYFFQDIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLFLFR  
DETLYAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWLWLGLVLKGCAMACLNYNIRAKSLLHCFQCC  
GAKVLLVSPELQAAVEEILPSLKKDDVSIYYVSRSTNDGIDSFLDKVDDEVSTEP IPESWRSEVTFSTPALYIYT  
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPFYHSAALLIGIHGCIVAGATLALRTKFSASQFDD  
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRALGNLGRGDVWRQFVKRFGDICIYEYAAATEGNIGFMNYA  
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKKL  
RDVFKKGDLYFNSGDLMLVDHENFIYFHDRVGD TFRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG  
MASIKMKENHEFDGKKLFQHIADYLP SYARPRFLRIQDTIEITGTFKHKRMTLVEEGFNP AVIKDALYFLDDTAK  
MYVPMTEIDIYNAISAKTLKL

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**FIGURE 470**

CTCTCTCTCTACTCTCTCTCAGAAATGACAATTTCTAGGTACAACCTTTTGGCATGGTTTTTCTTTACTTCAAGTCGT  
TTCTGGAGAAAAGTGGCTATGCTCAAAATGGAGACTTGGAAAGATGCAGAACTGGATGACTACTCATTCTCATGCTA  
TAGCCAGTTGGAAAGTGAATGGATCGCAGCATTCACTGACCTGTGCTTTTGAGGACCCAGATGTCAAACACCACCAA  
TCTGGAAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCCTGAATTTTCAGGAAACTACAAGAGATATATTT  
CATCGAGACAAAGAAAATCTTACTGATTGGAAGAGCAATATATGTGTGAAGGTTGGAGAAAAGAGTCTAACTCG  
CAAAAAAATAGACCTAACCACCTATAGTTAAACCTGAGGCTCCTTTTGACCTGAGTGCATCTATCGGGAAGGAGC  
CAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGAAAGTATGTAAAAGTTTAAATGCATGATGTAGC  
TTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATTTATCCAGCACAAAGCTGACACTCCTGCAGAG  
AAAGCTCCAAACCGGCAGCAATGTATGAGATTTAAAGTTTCGATCCATCCCTGATCACTATTTTAAAGGCTTCTGGAG  
TGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATAATAGCTCAGGGGAGATGGATCCTATCTTACT  
AACCATCAGCATTTTGAGTTTTTCTCTGTCGCTCTGTTGGTCATCTTGGCCTGTGTGTTATGGAAAAAAGGAT  
TAAGCCTATCGTATGGCCAGTCTCCCCGATCATAGAAGACTCTGGAACATCTTTGTAAGAAACCAAGAAAAA  
TTTAAATGTGAGTTTTCAATCCTGAAAGTTTTCCTGGACTGCCAGATTCATAGGGTGGATGACATTCAAGCTAGAGA  
TGAAGTGAAGGTTTTCTGCAAGATACGTTTCTCAGCAACTAGAAGAATCTGAGAAGCAGAGGCTTGGAGGGGA  
TGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCGTCACCTCAGAAAGCTTTGGAAGAGATTCATCCCTCAC  
ATGCCCTGGCTGGGAATGTCAATGTCATGTGACGCCCTATTCTCTCTCTTCCAGGTCCTAGACTGCAGGGAGAG  
TGGCAAGAAATGGGCTCATGTGTACCAAGGACCTCCTGCTTAGCCTTGGGACTACAAACAGCAGCGTGCCCCCTCC  
ATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTCAGGGTCAGCCCATCTTACTTCCCTGGGATC  
AAATCAAGAAGAAGCATATGTACCATTGTCCAGCTTCTACCAAAACCAAGTGAAGTGTAAAGAAACCCAGACTGAAC  
TTACCGTGAGCGACAAAGATGATTTAAAGGGGAAGTCTAGAGTTCCCTAGTCTCCCTCACAGCACAGAGAAGACAA  
AATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACATTGCTTTGACCACTCTTCCCTGAGTTCAGTGGC  
ACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATTGTGATTGGTGCACAAGGTTTAAGGTGACCCAATGATT  
AGCTATT

**FIGURE 471**

MTILGTTFGMVFSLLQVVSGESGYAQNGDLEDAELDDYSFSCYSQLEVNGSQHSLTCAFEDPDVNTTNLEFEICG  
ALVEVKCLNFRKLQEIIYFIETKKFLFIGKSNICVKVGEKSLTCKKIDLTITIVKPEAPFDLSVIYREGANDFVWTF  
NTSHLQKKYVKVLMHDVAYRQEKDENKWITHVNLSSTKLTLLQRKLOPAAMYEIKVRSIPDHYFKGFSEWSPSY  
FRTPEINNSSGEMDPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSPDPHKKTLEHLCKKPRKNLNVSFNP  
ESFLDCQIHRVDDIQARDEVEGFLQDTFFPQQLEESEKQRLGGDVQSPNCPSEDVVVTPESFGRDSSLTCLAGNVS  
ACDAPILSSSRSLDCRESGKNGPHVYQDLLLSLGTNTSLPPPFSLQSGILTLNPFVAGGQPILTSLGSNQEEAYV  
TMSSFYQNG

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**FIGURE 472**

GCCCAGACCTATGGATTGAAAGCGTGTGCTTTACCATCTGCTGTCTTGCTCCATCTGAGACCAGAGCCAAGATC  
TGCCCAAGGACTGGAATGCTTTCCCGAGTGGCTTGAGTTGGAGCCTGGGACTAGGAGCAGCCTTATTGAGGTACAA  
TTCATGTGCTTGTGGGTTTGGATGGCACAATCTGTGCTGGGCTAAGGAAAGCAGACTTGGCACCACATTAAACC  
CTGACAGATCCAGGCATCTATTCCAGGAACCTGGAAGCCAAGCGCAACAGGTGCTTGGAGGTCTATCATGATCAGCC  
CAGACCCCAGGCCCTCCCCGTGGCTTGGCCCGTGGGCTGAGAGCTATGAGGCCAAGTGTGAGCGCAGGCCAAGAGA  
TCCGTGAAAGCCGCCGTGCCGTCCCAATGTGACCACTTGCCGCCAGGTGGGGAAGACGCTGAGGATCCAACAGA  
GAGAGCAGCTCCAGAGAGCTCGACTGCAGCAGTTCTTCAGGAGGAGGAACCTGGAGCTAGAGGAGAAGGGCAAG  
CGCAGCATCCCAGGCCAGGGAGCAAGGGCCCTCCAGCGGCCAGGACAGGTGACAGGCACCAAGCTCTGAAGTCT  
TTCAGCCCAGCATCCTCCTCCTCAGGCATCTGCAGGGATCTGTCTGACCACCTCTCCTCACAGGCTGGGGGCC  
TTCCTCCACAGGACACTCCCATCAAGAGCCACCCAAACACCCGCTGGTACTCAGACAAAGGCAGAAGGCCAA  
CAATTAAAGACGATGCCAGTCAGCAAAACCAATTACGGAGTTGCAGTTCTGGATAAGGAAATCATCCAGCTTCTTG  
ATTACCTCAAAGAGGCCCTACAAGGGGAGCTGGTCTTAAACAGAAAATGGTGATTCTCCAAGACCTACTGTCCA  
CTCTGATTTCAGGCCCTGTGACAGCTCTTGGAAGGGACAGCTTAATGAAGACAAAACCTGAAGGGGAACTGAGATCCT  
TAGAAAACCAAGCTATACACCTGTACCCAGAAAATCTCCCTTGGGGAATGAAAAAAGTACTACTGGAGATGGAAG  
ACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCTGGAGGAGAAAATGAATGCAGAGC  
AGCAACTACAGAGCACACAGCGATCCTCGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGAGGAGGCCAGTATGAGG  
CTCTGAAGGAGGACTGGAGGACCTTGGGAGCCAGCAGCAGGAGCTGGAGAGCCAACCTCCACGTGCTTCAGTCCA  
AACTGCAGGGAGCAGATAGCAGGGACTTACAGATGAACAGGCCCTGCGGATTTTGGAAAAATGAGCACCAGCAAC  
TGCAGGCCAAGATTGAATGCCGCAAGGGGACAGAGACCTGTGCAGCTTGGATACCCAGGACCTACAAGATCAAC  
TAAAAAGGTGAGAGGCAGAGAACTCACCTGGTGACAGAGTACAGCAGTTGCAGGGTTTGCTTCAAAATCAAT  
CCTTACAGCTTCAAGAACAGGAGAACTCTTAACAAAGAAAGATCAGGCTTTGGCCGTGTGGAGTCCAAAGTCTCT  
TCCCACGAAGTGGAGCCTGAGGGTACAGGGAAGGAGAAAGACTGGGATCTCAGAGACCAGCTGCAAAAAGAAGA  
CTTTGACAGCTCAGGCCAAGGAAAAGGAGTGCAGAGAACTGCATTGAGAATTAGACAACCTCAGTGACGAGTATC  
TCTCTCGCTGCGTAAGCTGCAGCACTGTCGAGAAGAGCTGAACAGAGCCAGCAGCTGCCCTCCAGAAAGGCAAT  
GTGGGCGATGGCTCCAGTGTCTGATGGTGGTGATTGCTGCAGCACTGGCAGTGTTCTTGCCCAATTAAGACAACC  
TGATGATCTGAATAATTTGTGACAACCTGCCTTGGGTGAAAAATCAGAAGCAAGCAACTCAGCGAAAACTCAGAAG  
GTTTGGGTACATTACAGCTTGGGTTTTCCAACCTGACTTAGGATTTCTGACTTTTTATTATAATTTCTTAACCTACTG  
TAAATAAACTTCACCTGACCAAGATTGTTCTCTCA

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**FIGURE 473**

MISPDPRPSPGLARWAESYEAKCERRQEIRESRRCRPNVTTTCROVGKTLRIQQREQLQRARLQQFFRRRNLELEE  
KGKAQHPQAREQGFSRRPGQVTGTSSEVFPAQHPPPSGICRDLSDHLSSQAGGLPPQDTP IKKPPKHHRGTQTKA  
EGPTIKNDASQQTNYGVAVLDEIIQLSDYLKEALQRELVLKQKMVILQDILLSTLIQASDSSWKGQLNEDKLGK  
LRSLENQLYTCQKYSFPWGMKKVLEMEDQKNSYEQKAKESLQKVLEEKMAEQQLQSTQRSALAEQKCEEWS  
QYEALKEDWRTLGTQHRELESQHLVLSKLGADSRDLQMNQALRFLNEHQQLQAKIECLQGDRDLCSLDTQDL  
QDQLKRSEAEKLT LVIRVQQLQGLLQNQSLQLQEKEKLLTKKDQALPVWSPKSPNEVEPEGTGKEKDWDLRDQL  
QKKTLLQLAKEKECRELHSELNLSDEYLSCLRKLQHCREELNQSQQLPFRQCGRWLPVLMVVIAAALAVFLAN  
KDNLMI

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FIGURE 474A

GGCTCCAGCTCCAGCAGCCATGGCGCCTTGTGCAGCTCCTTTTGGTGGGTGGAGAAGAGCTCAGCCAACTTGGAT  
GGAGCGTCGGTGAAGCAAGAGCTCAGAGGGGAGAGGGGCTGGCCTGGCATGACCGTCGCCAGTCCCCCACTTGG  
CTGGGTGATGTCCCCCGGCCCGGGTCTCGGGCCCCCTTGGCAGTACCCATGGAGCAACTGACAACTCTCCACGGC  
CTGGGACCTGGCGAGCCATGGAGCCATGGGCACCTGCCACCTGGCATAGCTGGACTCCAGGTTCGAGGGGGTGAAC  
CTAGCAGTGCAGCCCCAAGCATCGCTGATACTCCTCGGCAGCTCTGCAGCTTCAAGAACTGAGGTCTGAGGAGA  
GTTCCAAGCCCAAGAGGACCGGGAGCTCCAGGCCCTGGGGGGAATGACCCCTGAAGGAGCAGAGGCTTGTCTGC  
CCAGCCTGGCGACGAAGCATCCAGCTCTGGACCCGCGCTGCCAGAGGCCAGGATGAGGAAGTGGAGGCTTTC  
TGAAGGCCAAGCTGAATATGAGCTTTGGGGACAGGCCCAATCTGGAGCTGTCTGAGGGCCCTGGGGGAGCTGCGGC  
AGCGCTGTGCCATCCTTAAGGAGGAAAAACAGATGCTGAGGAAGACAGCTTCCCTGAGACAGAAGAAAGGTGC  
GGAGGCTGAAGCGGAAGAACCGCGAGCTGGCGGTCAITGCCAAGCCGCTGGAGGAGAGGGCCCCGAAAGCTGCAGG  
AAACGAACCTGAGGGTGTGAGTGCCCCCTTGCCCGGCCGCGGGACCAAGCTTGGAGTTGTGTGCGGAAGGCCATG  
CCCCCAGCGAGCCCGGACCTCAGTGAGACAGCCAGTGCCTGCTGGCCAGGACAAGCAGATTTCTGCCTTGC  
AGCGGGAGTGCAGGGAGCTGCAGGCCAGGCTCACTTGGTGGCAAGGAGGGTCCCCAGTGGCTCCACGTGCGGG  
ACTTCGATCGGCTGCTGCGCGAGTCCCAGCGGGAGGTGCTGCGGCTGCAGAGGCAGATCGCGCTCGCCCAACCG  
GGGAGACGCTCCCGCTCCCGGCTTCTGGCCCCGGGCCCTGCTCTCAGGCCAGCAGAGGGCGCTCTGCTCCG  
GGGCCCCGGGAGAGGCCACGCCCCAGGAGGATGCGGACAACCTACCCGTGATTCTAGGGGAGCCAGAGAAAGAGC  
AGAGGGTGCAGCAGCTGGAATCGGAGCTCAGCAAGAAGCGGAAGAATGCGAGAGCCTTGAGAGCAGGAAGCCCGGA  
AAAAGCAGAGGCCGATGTGAGGAGCTGGAACCTGCAGCTGAGACAAGCGCAGAATGAGAATGCCCGCTTGGTGGAG  
AGAACTCCCGGCTCAGTGGGAGAGCCACAGAGAAGGAGCAGGTGGAGTGGGAGAATGCCGAGCTGAGGGGCCAGC  
TCCTGGGGGTGACACAGGAGAGGGAGTCAAGCCTTCGCAAGAGCCAGGGGCTGCAGAGCAAGCTTGAGAGCCTTG  
AGCAAGTGTGAAGCACATGCGGGAGGTGGCCAGCGGCCGAGCAGCTGGAGGTGGAGCATGAACAGGCTCGGC  
TCAGCCTACGGGAGAAGCAGGAGGAGTCCGAGACTGCAGCAGGCCCAGGCTGAAGCCACAGAGGAACATGAAG  
GAGCCGTGCAGCTGTCTGAGTCTACCTTGGATTCCATGCAGGCCCGGGTTCGAGAGCTCGAAGAACAGTGC CGCA  
GCCAAACGAGCAGTTCAGCCTCTGTGCACAAGAACCTCCAGGCTTTCGCGCTGCCACCGGGCCCTTGGATCTGC  
TCACATCTGCCCTGGAAGTGTGGGAGCCTTGGAGACTGCCACCACACCCCTGCTGCTGCTCATCTCCAGGCTT  
GCCGGGGTCTGGCCCCAAGACCTTGACCTCCCGCGGGCTCCCTTGGCGCTGCACCCCAAGTCTTCCGAGC  
CTGCCCTGCCACTCTCACTGGGGTCCCTCGAAGGACAGGCCAAGAAGGCAGAGTCTCTCTCCAATCCTCCCACT  
CCGAGTCCATCCACAACGCCCCAAGTCATGCCCTACACCTGAGGTGGACACAGCCAGTGAAGTGAAGGAGCTG  
AGGCAGACAGTGTCTCCCTGCTCCAGCTGCGCCAGAGGGCAGCCGGGAGGAGGCAGGATCCAGGTCTTCTGAT  
CACGTTATAGCTACAAACCCCTTTGAGGGTCCCAATGAGAATCCAGAAGCAGAGCTTCCGCTGACAGCTGGCGAGT  
ACATCTACATCTATGGCAACATGGATGAGGATGGCTTTTTTGAAGGAGAGTCTATGGATGGCCGAAGGGGCGCTGG  
TCCCTTCCAATTTTGTAGAGGCTGTGTCGGATGATGACCTCTGACCTCCCTCTCCAGAGTGTGCCGATTGTG  
CCCACAGCTCAGGCCCTGAACCTCAGTTTCTGAGTGTAGGTGGGGGTGGCAGCAGTAGCGGGGGCCAAAGCAGTG  
TGGGAAGGAGCCAGCCAGACCTGAGGAGGAGGATGCAGGGGACGAGCTCAGTCTGAGCCCATCACCGAGGGGCC  
TGGCGAGCCTCTGCGCTGCCCTTACCCCCGCGCTGTGGTCTTCCAGCGGCTGGCTGGAGCTGGTGTCTGG  
CCTGGGAGCGCCTCTTGAGCAAGTGGAGCTACACGGCTTCCATATCTGTGTGAATGGGGAGCTGCGACAGGCC  
TGGGGGCTGGGGCGCCACCCCAAGGCCGTGCTGGAGAACCTGGAGCTGTGGCGGGGCCCTTCACTTTCTGTCC  
AGGCCCTGACTAGCGGGGCGACTCTGCACCACTGCGCTGTGCTTGGCGGTGGCTGCCCGGGGCGGAGTGGTGC  
CCAGCCAGCTGCGGGTCCATCGGTTGACAGCCACATCTGCTGAGATCACCTGGGTGCCCGCAATAGCAACTTGG  
CCCATGCCATCTACCTCAATGGGAAGAATGCCACCTGCCAGCCCACTACCTAGTGGGCCCTTCTGCACT  
TACGGCTTGGCACACCTATCAGGCCAAGTGGAGGCTCAGCTCCCACCCCAAGGGCCCTGGGAACCAAGGCTGGG  
AGAGGCTGGAGCAGCGGGCTGCCACCTTGCAGTTCAACACACTCCCAGCAGCCCACTGATGCCCTCTGGAT  
TGCAGATCAGGCTGGGCCCTCCCTGGATCTTGATCATCAGTTGGCTCCAGTACCACCTCATGCTGCTGCTGGCA  
CATCCAACGGTGTCCGGTCAACAGGCTATGCCATCTACGCTGATGGGCAGAAGATCATGGAGGTGGCCTCACCCA  
CGGACGCCAGTGTACTGGTGGAGTTGTCCAGCTGCAGCTGCTGCAGGTGTGCTGTGAGGTGGCTGTGCGCACCA  
TGTGCGCCACAGGGGAGTCCGCGGACTCCATCCCGGCTCTTCACTCCCGGCTGGCTTCGCGCCAGGCTGGCAG  
CCCGAGTCTCTGCCCTTACCGCACCCAAGCCAGAGGCCAGAGCGCCCTTGTCTAGGCTCCCAGGGGCTG  
GAGACCCCAAGCTCTCTCTCAGCACCTTGTCTCTTGAACATAAGAGCTCCAGGAGCACCCCTGCAAGCC

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FIGURE 474B

CTTCCAGAGAGATGGCAAAGGGTCCCACGAGGACCCTCCAGCACCTTGCTCCCAGGAGGAGGCTGGGGCAGCAG  
TGCTGGGCACCTCAGAGGAGAGGACAGCCAGCACATCTACCTCGGGTGAGAAGGACCTTGGCCCCGACGCTCCCT  
CACTGGCCAAAGCAGAGGGCCAGTGGAATGCAAGGAGAGGCGCTGTCCGGCTCCAGCTCCACCCAGGAGAGCAGGG  
CCCAGCAGGGCCAAATACCGAGATGTGCCAAGGAGGAGACCAGGGCTGTGGCTGAGGCCCAGGCTGAGAAGG  
AGGACACAGCAGAGCTTGGGGTTCACTGTGTGAACCTCCCTCGTGGACCAGCGGCCCAACTCAGACCTGTCAGACA  
TCCAGGAGAGAGGAAGAGGAGGAGGAGGAGGAGGAAGAGGAGCTGGGTTCAGGACTTGCTCTCTTCAGAAAGC  
AGGTTGCTGGCAACAGCATCAGGAGAAATGGGCCAAAGTCCAGCCCCAGCCCTTTTGTGAGACTGACAGCGATG  
AGGAGATCTTGGAGCAGATCTCGAGCTGCCCTCCAGCAGTTCTGTAGCAAGAAGCTCTTTAGCATCCCGGAGG  
AGGAGGAAGAGGAAGAGGAGGAGGAGGAGGAGGAAGTCTGGGGCAGGCTGTTCTTCCCGAGACCTTGGCCCCG  
CTGAACCTGCAATGCTGGGGCTGGGCTGTGACAGTGGTCAGCCCCGAAGACTGGCCAGTGTCCTTGTCTCT  
AGTCTCCAGGGCTGGAGACTGCCTGGAAGACATGCCTGGATTAGTTGTTGGAAGCAGCCGGAGGAGAGGAGGGG  
GCTCCCTTGAAAGCCCCAAGCCGACAGGCGGCCCTCCAGATCCCCGAGAACACTGCAGCCGACTTCTCAGCAACA  
ATGGGCCCCAGGCTCTTGACAGACTGGGCCCCACACGGGAGAGGGGTGGCCCTCCCGCTAATTGAGGGCCCCAGGA  
CTGGACTAGAGGCTAGCGGAGAGGCGCGCTGGGCCCTTCCCGGAGGTGCTCCCGTGGCCGGGCGCTGGAGCGCTG  
GCCTGGCCAGCTGCCTTTCCCCCAAGTGCTTGGAAATCAGCAATTGAATATGATTCGGAGATGACAGAGGAGCGG  
GACCGGGGGGACTCAGCATACCAAGCTCTTGCTACCTGGAGATAGGAGGGGCTGGGGCACAGCAACTGTAGGAA  
GGCCCCAGGGGGCTCCGAAGGCCAATTCAGGCCCAAGCCCTACCCAGCGCTCCAGCCTGGGAGAAAGGGGAAC  
CAGAGCGGAGAGGCGCGAGTGCAGCGGCAGAGCCAGAGGCCACTCTCCCGGCAACAGAGACCGGAGAGGCCA  
GAGGGCAGGACGGCTCTGGGCGGAGGGGCCCCAGAAAGAGAGGTGTCGAGTCTCAGGCCAAGCACTGCAGAGC  
TAGTCCCTGCGAGGAGCCCTCAGAAACACTGGCTTACCAGCACCTTACCGTGCAGGATCTTTGTGGCTCTGTTTG  
ACTATGACCCCGTGTCAATGTGCGCCCAATCCTGATGCTGGAGAAGAAGCTTCCCTTCGAGAGGGGTGAGATCC  
TGAAGGTGTTTGGGGACAAGGATGCCGATGGCTTCTACCAGGGCGAAGGTGGGGCCGGACAGCGCTACATTCCTT  
GCAACATGGTGGCTGAGGTGGCTGTGGACAGCCCTGTCTGGGAGACAGCAACTGTCTCAGCGGGGTATTGTGCC  
CAGATATTTCTCTTGAAGGCTCAGGGAAATGGTCCGTTTGTGTACTCCAGCCACACAACATGGGCCCTCTCCCA  
AGCCCCCGGCTCCAAAGAAAGCTGAGTCGGAAGGCCCTGCCAGCCCTGTCCAGGCCCCCCAAGCTGGTCCCTT  
CTGCTGACCTGAAAGCTCCCCACTCCATGGTGGCTGCATTGACTACAACCCCCAGGAGAGTTCCCCCAATATGG  
ACGTGGAGGCAGAGCTGCCCTTCCGGGCAGGGGATGTCAATTACTGTGTTTGGGGGATGGAACATGACGGTTTCT  
ACTATGGGGAATTAATGGACAAAGGGGCCCTGGTTCCATCCAACCTCTCTGAGGGCCCTGGGCCCTGAGGCAGGCG  
GCCTGGACAGGGAACCCAGGACACCCAGGCTGAGAGTCAGAGAACGAGGAGGAAGATCCAGTCTAGATGG  
AGATAGATATATGTAGAGAGAGCAACATGACTGGGGCTGCCACCACACAAGGGTCCCCAGGGCCCCAGGTGGGCC  
TTGTACCCCCAGCTCTGGCAGCGCCCCCAGGATTGAACGTGGGGAGCCCCAGGGCAGAAAGCAGAAAGGTGTGGGT  
TTTTTCCAAAGGGGAAGCTCTCTCAGGAGGATGGGCTCTGGGAAGAAGGAGTGAAGCTGTGGCCCATCTCTGCA  
GGCAGAAGAGGCCCTGAGAGGCCCCAGATCACTGTTTTTGTGTGACAGGGAAGGCTCAGAATGGGCCAGAGCC  
CCCGTCTTTTGTGCTTAACACTGTGGCAATCAGAGGGAATCAAAGAGCCTTGGTGAAGGTGAGAGCTAAATGGCT  
CCTTAAGGATGAATCTTTTGAAGAGACCTTCTCTTACAGGAGGGGAACCTGAGGCCACAGTGAGTATGTAAAC  
TTGACCAAGGTCACTGAGCCAGGACTGGACCCAGGACCTCGCGTCTCTGGTCCACCCACCTCTGCTTACTAGTGTG  
CCACAGTGTGCGCTAGTCCCTTTTGGCACCTTCCAGTCCCAGGAGCGGCCCTGGAGGGAGAAAGGAGCCTGT  
GCCCTGTGCTGGCTGTGGCTGTCTGATCTGTCTTCCCTCCCTGAAAGAAAGTTTGCATGAGTTTATTATGGA  
GCCCATCTCCCCAGCGGGCAGGGGGCGGAGCTGTATATATATATATCTAGTGCCTCAGTTCAGCTTCTCT  
CACCTCGCTTCCACTGCACAGGCCCCAGGAAGGAGAAAGGCCAAGCCAAAGTGGGCCCCACCTTGGCCCCGTCGTG  
CTCATCTCTTCCCTGCCCCGGGCTGTGGCCCTGTAAAGTCCCCGCCCCAAAGACCTTGGGGCGACGGGGCGG  
AAAGCGGAGTGTGGGTTTGCTTATTTTGTCTATTGGATTCAAGTTCTTTTGCATGTTTCTTAAACCCCTGTTG  
GAGTCCAGGGGCTGGAGAAAAGGACAGATTTATGCAGCTATTTTCATACATCTTCTGTTTCAGAGTGGGTAGGGG  
TTTTCCGCGTTACCCGATCCAATCTCATCCCCACCTTTGAGGGGTGAGTGTGCTTTGCATGTTTCTTTGCT  
GTGGTGGGAGATAGTTTGACTGAACCCCCACCTTGACCTTGGTCTCCAGGGGTGTGGAATGGTGGGGGAATTTGT  
TTAAAAAGACATTTTATTATAATAAGTCTATTTTACAAAAA

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**FIGURE 475**

MEQLTTLPRPGDPGAMEPWALPTWHSWTPGRGGEPSSAAPSIADTPPAALQQLERSEESSKPKGDGSSRPVGGT  
DPEGAEACLP SLGQQASSSGPACQRPEDDEEVAFLKAKLNMSFGDRPNLELLRALGELRQRCAILKEENQMLRKS  
SFPETEELVKRRLKRKNAELAVIAKRLEERARKLQETNLRVVSAPLPRPGTSLLECRKALARQARARDLSETASALL  
AKDKQIAALQRECRELOARLTILVGKEGPQWLHVRDFDRLLRESQREVLRQRIALRNQRETILPLPPSWPPGPAL  
QARAGAPAPGAPGEATPQEDADNLPVILGEPEKEQVRVQQLSELSKRRKKCESLEQEARKKQRCELELQLRQA  
QENENARLVEENSRLSGRATEKEQVWENAEALRGQLLVGTQERDSALRKSQGLQSKLESLEQVLKHMREVAQRRQQ  
LEVEHEQARLSLREKQEEVRLQQAQAEAREHEGAVQLLESTLDSMQARVRELEEQCRSQTEQFSLLAQELQAF  
RLHFGPLDLLTSALDCGSLGDCPPPPCCCSIPQPCRGSGPKDLDLPFGSPGRCTPKKSEPAATLTGVPRRATAKK  
AESLSNSSSHSES IHNSPKSCPTPEVDTASEVEELEADSVSLLPAAPEGRSGGARIQVFLARYSYNPFEGPNENPE  
AELPLTAGYIYIYGNMDEDDGFFEGELMDGRRGLVPSNFVERVSDDDLTLSPPELADLSHSSGPELSFLSVGGG  
GSSSGGQSSVGRSQRPREEEDAGDELSPSPGELGEPFVYPRRLVVLKQLAHSVVLAWEPPEQVELHGFI  
CVNGELRQALGPGAPPKAVLENLDLWAGPLHISVQALTSRGSDDLPRCCAVGARAGVVPSQLRVHRLTATSAEI  
TWVPGNSNLAAHAIYLNGECPASPSTYWATFCHLRPGTPYQAQVEAQLPPQGPWEPPGWERLEQRAATLQFTTLF  
AGPPDAPLDVQIEPGSPGILISWLPVTIDAAGTSNGVRVTGYAIYADGQKIMEVASPTAGSVLVLSQLQLLQ  
VCREVVRVTMSPHGESADSIPAPITPALAPASLPARVSCPSPHPSPEARAPLASASPGGDPSSPLQHPAPLGTQ  
EPPGAPPASPSREMAKGSHEPDPAPCSQEEAGAAVLGTSEERTASTSTLGEKDPGPAAPSLAKQEAETAGEACP  
ASSSTQGAQAQAPNTEMCGGDPGSGRLPRAEKEDTAEGLVHLVNSLVDHGRNSDLSDIQEEEEEEEEEEEEEL  
GSRTCFSQKQVAGNSIRENGAKSQDPDFCETDSDEEILEQILEPLQQFCCKLFSIPEEEEEEEEEEEEEKSGA  
GCS SRDPGPPEPALLGLGCDSGQPRRPGQCPLSPRESSRAGDCLEDMPGLVGGSSRRRGGGSPEKPPSRRRPPDPR  
EHC SRLSNNGPQASGR LGPTRERGGLPVIEGPRITGLEASGRGRLGPSRRCSRGRALPGLASCLSPKCLEISIE  
YDEDEQEAGSGGISITSSCYPGDREAWGTATVGRPRGPPKANS GPKPYRPLPAWEKGEPPERGRSATGRAKEPL  
SRATETGEARGQDGSGRRGPQKRGVRVLRPSTAELVPARSPSETLAYQHLPVRIFFALFDYDVPVMSPNPDAGEE  
ELPFREGQILKVFGDKDADGFYQEGGGRTGYIPCNMVAEVAVDSPAGRQQLLQRGYLSPDILLEGSGNGPFVYS  
TAHTTGPPPKRRSRKKAESGPAQPCPGPKLVPADLKAPHSMAAFDYNPQESSPNMDVEALPFRAGDVITV  
FGMDDDGFFYGELNGRGLVPSNFLEGPGEAGGLDREPRTPQAESQTRRRRRVQC



**FIGURE 476**

ACCACTGCTGGCTTTTGTGTAGCTCCACATTCTGTGCATTGAGGGGTTAACATTAGGCTGGGAAGATGACAA  
AACTTGAAGAGCATCTGGAGGGAATTGTCAATATCTTCCACCAATACTCAGTTCGGAAGGGGCATTTTGACACCC  
TCTCTAAGGGTGAGCTGAAGCAGCTGCTTACAAAGGAGCTTGCAAACACCATCAAGAATATCAAAGATAAAGCTG  
TCATTGATGAAATATTCCAAGGCCTGGATGCTAATCAAGATGAACAGGTCGACTTCAAGAATTCATATCCCTGG  
TAGCCATTGCGCTGAAGGCTGCCATTACCACACCCACAAAGAGTAGTAGCTCTCTGAAGGCTTTTACCCGAC  
AATGTCTCAATGAGGGCTTTTCTTCCCTCACAAAACCCAGCCTTGCCCGTGGGGAGTAAGAGTTAATAAAC  
ACACTCACGAAAAGT

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**FIGURE 477**

MTKLEEHLEGIVNIFHQYSVRKGRFDTLSKGELKQLLTKE  
LANTIKNIKDKAVIDEIFQGLDANQDEQVDFQEF  
ISLVAIALKAAHYHTKE

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**FIGURE 478**

TGAATT CGGGAAGCGCCG CAGCGCGGATCCGGCGGCTGCTGCAGCCCGGGCGCTGCCGAGAAGGAGGAGGGG  
AAACACAAAGCCGGCTACGCGCTGCGAGATAACAAGAGTAATCCACAGACTTAAACATGAGCTCAGATGCCAGC  
CAAGGCGTGATTACCACTCTCCCTCCTCCAGCATGCGCTCACAAGAGAGATATTTTGACCCGCATCAATGAAAT  
GACCCAGAATACATTAGGGAGAGGAACATGTCTCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAA  
CGAGTTACTCAGATCCTGCAAAGICTGCTCTTCGGGAAGACTTGAATGCCTTATTCAAGAACAGATGAAGAAA  
GGCCACACCCAACTGGATTACTAGCATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTT  
TCTTCACCTCCTCTCAGTCTTGGCATGGTCACACCTATCAATGACCTCCTGGTGAGATACATCCTCATATGTG  
AAGGGAGAAAACTTACTCGCTGTAACCTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTG  
GCAAAATACCTATATCTCAGTAAGAATAAGTAAGGAGCAGACACATTATAATAATCCGACAGGCCATCTTTT  
TCTGAAGCTACAGCCTCCAATTTGGTGAAAGTCAATATAATAGGAGAAGTGTTGACCAAGGGAAGTACCAATTTG  
AAAATTGACCATACAGGATTCACTCCCATGTCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTATACAC  
ATCCATACCTTGGCAACAGCAGCTGTATCTCCATGAAATGTGGGATCTCTCCAATTTCTCAAGAGTCTCTCTT  
CTGGGAGATGTTGCCATTATGACTACCAAGGCTACTTGAAGAACAGGAGGAGAGAATTCACCTGCAGAAGGTT  
CTGGGACCAAGTTGTAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTGCACCTTGAGAAACATTAGAGGAGGCT  
TTTCATTATATTTTTAATGTGCAACTAGCTGTGAGATTCAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGAC  
AATCTCCATGTACTGGACTTTTCAAGATATAAGCTTTCACCTTACACTGTAGCAGCTCTGGTGAGGAGGTTGTG  
AATATGGGTTCCCATCCAAAATGGAAGGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACTTG  
GGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATC  
CCAGCAACTGTGACTGCTTTTTCTTTGAAGACGATACAATGCCACTCTCTCCTCTCCAAATACATGGGCACAAGA  
GGCAACAGCGTGAAAAACAAGATGGCTGAACTCACCATACTTACATGAAAGTGAATGTGCCTGAGGAGTCT  
CGGAACGGAGAAACCAAGTCCCGAACCAAAATCACGTGGATGAAAGCAGAAGACTCATCTAAAAGTTAGTGGTGA  
ACACCTATCCAAAATTGAAGATCCAAATCAAGTTGTCTCTTAAACACAACCCGAATGAGGTACTAGAAAAGAGA  
AATAAGATTCCGGGAACAAAATCGATATGACTTGAACACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTT  
GTGGATAAGCCACCTTCTACTATGCAATTTGAAGATGATGATCATGGCCCCACAGCTCCTCCTAACCCATTTAGT  
CATCTACAGAAGGAGAACTTGAAGAGTATAAGAGGACAATCGAACGTAACACAACAGGCCCTAGAAGAAAACCAT  
GAGCTGTTTTCCAAGAGCTTCATCTCCATGGAAGTGCTGTATGTTAGTAAATGGCAAGGATGATATGCATGAT  
GTTGAAGATGAGCTTGCTTAAGCGAGTGAGTGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATT  
AAGTCTCCAGAGAAAATCGAAGAAGTCTGTCACTGAAAGGCTCCCTCTCAAAATCGCCATCCAAAGAAAAAGAAG  
AAATCCGCACTCCTTCTTTTCTGAAAAAGAACAAAAAAGGAGAAAGTTGAGGCCTAATAAAGTCTTTTTAT  
AATTATTATTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAAATATGCAATGGTGA  
TCAGATTGGGGATGTAGCAAACTGGACTTTAAGAACTGGAAGAGGTTTTACAAAAGAAAACTTCAAGATTCA  
TCTCTCATTTTATATGTCCAGAAATGGCTTTGGAATTTTAAGCAATTACTAGTTTAAATAGCTCTGCCCTCATG  
AAGTTTATTATT

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**FIGURE 479**

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGKELTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIIHIHLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGSPCKVLVLRNHGVVALG  
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVNDNLHVLDFOKYKAFTYTVAAASGGGGVNMGSHPKWKVGEIEFEGLM  
RTLNDLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTMPLSLQIHGTRGNKREKTRWLNNSPTYMKV  
NVPEESRNGETSPRTKITWMKAEDSSKVSGGTPIQIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGFQSQ  
LLAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLHTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPMVVG  
KDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPGSPSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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**FIGURE 480**

CTTTCGCTCCCTTGCTTCGCTTCGCTTTTCTTCTACTTATTCTTATCTGTGCTTTTCGCTTTGTTTGCTCT  
CCGCTGTGTTTTCCCTCAGGGCCCCCTTCTTTCTCGACCTTTTCAAATCGAAATATGCGCGCCGGAGCGGCTGCG  
GAGCCGGGCGCCCTCCGCTTCAAGTTCGCGGGCTTGCTGCTCCGTGGTGAAGCTATTAAGTACCTCACAGAAGC  
TCTTCAGTCTATCAGTGAATTAGAGCTTGAAGATAAACTGGAAAAGATAATTAATGCAGTTGAGAAGCAACCCCTT  
GTCATCAAACATGATTGAACGATCTGTGGTGAAGCAGCAGTCCAGGAATGCAGTCAGTCTGTTGATGAAACTAT  
AGAGCAGCTTTTCAATATCATAGGAGCATTGATATCCACGCTTTGTGTACAATTGAGAAAGAAAAAATTTCT  
TCCTCTGTTAATGACCAACCCCTGCACCAATTTATTTGGAACACCAAGAGATAAAGCAGAGATGTTTCGTGA  
GCGATATACCATTTTGCACCAGAGGCCACAGGCGATGAATTATTTACTCTCCGGTGATAGGTTCTCACCTGA  
TGAAAGCGGAAGCAAATTCAGCTTAAACAATAGAAACCTTATTTGGGTAGTACAACCAAAATCGGAGATGCGAT  
TGTTCTTGAATGATAACGCAGTTAAAGAGGGAAAAATTTTCTGGAAGATCCTACTGGAACAGTCCAACTAGA  
CCTTAGTAAAGCTCAGTTCATAGTGGTTTATACACAGAGGCATGCTTTGTCTTAGCAGAAGGTTGGTTTGAAGA  
TCAAGTGTTCATGTCAATGCCTTTGGATTTCCACCCACTGAGCCCTCTAGTACTACTAGGCATACCTATGGAAA  
TATTAATTTTTTTGGAGGTCCTTCTAATACATCTGTGAAGACTTCTGCAAACTAAAACAGCTAGAAGAGGAGAA  
TAAAGATGCTATGTTTGTGTTTTATCTGATGTTTGGTTGGACCAAGGTGGAAGTATTGGAAGAACTTCGCATAAT  
GTTTGCCTGTTATTACCAGCACCTCCAACCTGCTTTATCTGTGTGTAATTTTCACTGCACCATATGGAAA  
AAATCAAGTTCAAGCTTTGAAAGATTCCTTAAAACTTTGGCAGATATAATATGTGAATACCCAGATATTCACCA  
AAGTCGTTTTTGTGTTTGTACCTGGTCCAGAGGATCCTGGATTTGGTTCCATCTTACCAAGGCCACCCTTGTCTGA  
AAGCATCACTAATGAATTCAGACAAAGGGTACCATTTTTCAGTTTTTACTACTAATCCTTGCAGAATTCAGTACTG  
TACACAGGAAATTACTGTCTTCGTGAAGACTTAGTAAATAAAATGTGCAGAACTGCGTCCGTTTTCTTAGCAG  
CAATTTGGCTATTCTTAATCACTTTGTAAAGACTATCTTATCCCAAGGCATCTGACTCCCTACCTCTTTATGT  
CTGCCAGTGATTGGGCATATGACTATGCTTTGAGAGTGTATCCTGTGCCGATCACTTGTCAATTGCAGACAA  
ATATGATCCTTTCAGTACGACAAATACCGAATGCCTCTGCATAAACCTGGCTCTTTTCCAAGAAGTGGATTTTC  
ATTCAAAGTTTTTATCTTCTAATAAGACAGTAGAAGATAGCAAACTTCAAGGCTTTTGAAGATTCTTAAAGATC  
ATCTGAAGAAAATTCATCAGTTTTCTGCTTAACCTCTATATCTTATGTGATTCTGATATTACAATAAAATATGGT  
AAACTTT

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**FIGURE 481**

MAPERLRSRAPSAFKLRGLLLRGEAIKYLTEALQSI SELELEDKLEKI INAVEKQPLSSNMIERSVVEAAVQEC  
 QSVDETIEHVFNIIGAFDIPRFVYNSEKFKFLPLLMTNHPAPNLFGTPRDKAEMFRERYTILHQRTHRHelfTPP  
 VIGSHPD ESGSKFQLKTIETLLGSTTKIGDAIVLGMITQLKEGKF FLEDP TGTVQLDLSKAQFHSGLYTEACFVL  
 AEGWFEDQVFHVNAFGFPPT EPSS TTRAYYGNINFFGGPSNTSVKTS AKLKQLEENKDAMFVFLSDVWLDQVEV  
 LEKL RIMFAGYSPAPPTCFILCGNFSSAPYGKNQVQALKDSLKTLADI ICEYPD IHQSRFVFVPGPEDPGFGSIL  
 PRPPLAESITNEFRQRVPFVSFTTNPCRIQYCTQEI TVFREDLVNKMCRNCVRFPSSNLAI PNHFVKTI LSQGH  
 TPLPLVYCPVYWAYDYALRVYPVPDLLVIADKYDPFTTNTNECLCINPGSFPRSGFSFKVFYPSNKTVEDSKLQ  
 F

## FIGURE 482

GGCGCGGGGACGCGGGTTTCTGCCTCAGGCCCTGCCCTGCCTACTCTGCGCTCTCTGCCCGCGCGCGCGCGCC  
TCAGCCTTCGGCCCTGCGCTGCGCGCCCGGCCGTGCTGCC**ATG**CCCTGCCGCGCGGAAAGCCCGCGAGGCATCA  
GAGCCGCTGCGCGGTGACGCGCCCGCCCTGCCCGCGCGATGGAGCCTGGGACGGAAGCGCAGAGCCGACGG  
CAGGCGCTGGAGGCCCGAAGACGCCGAGGAGGCAGAGCACCGCGCGCCGAGCGCGAGACCCGAGAGCTTTACCAC  
TCCTGAAGGCCCTAAACCCCGTTCCAGATGCTCTGACTGGGCAAGTGCAGTTGAAGAAGATGAAATGAGGACCAG  
AGTTAAACAAAGAAATGGCAAGATATAAAAGGAAACTCCTCATCAATGACTTTGGAAGAGAGAGAAAATCATCATC  
AGGAAGTTCTGATTCAAAGGAGTCTATGTCTACTGTGCCGGCTGACTTTGAGACAGATGAAAGTGTCTTAATGAG  
GAGACAGAAGCAGATCAACTATGGGAAGAACAATTGCTACGATCGTTATATTAAAGAAGTCCCAAGACACCT  
TCGACAACCTGGCATTTCATCCCAAGACCCCTAATAAAITTAAGAAGTATAGTCGACGTTTCATGGGACCAGCAAAAT  
CAAACTCTGGAAGGTGGCTCTGCATTTTGGGATCCTCCAGCGGAAGAAGGATGTGATTTGCAAGAAATACACCC  
TGTAAGCCTTGAATCTGCAGAAAGCAGCTCCGAGCCCGACACAGCTCTCAGGATGACTTTGATGTGTACTCTGG  
CACACCCACCAAGGTGAGACACATGGACAGTCAAGTGGAGGATGAGTTTGATTTGGAAGCTTTGTTAACTGAACC  
CTTGAGAGACTTCTCAGCCATGAGCT**TAA**CTGCCCCCTGGCGGCCAGGAAGAGAAACAGCTCCTCCCGACTAGGT  
GGAAGGCTGGCCAGGCACCAAGCATGTGTGTGCACTTGTAACCTGGTGGTTTCTCTGTTAGCAGTCCATTAGCTCA  
TGCTGAATTATTTTGCCTTACTTTCTTAAGAAACATTAATTTTATGTATAGTGAGTATATTTGTCATGTTTTAA  
ATTGTAATGGAGCTAAGTCCAAGAAAGTACTTGAAGCTCTCTCCAGCGAGCTTAATTGCGTAATCCCTGTTGT  
CCTCCAGGGTAAGCTGACACGTCATACATAACTGGTTTCCACAGGCATCTTCAGTTATTGCTTGTGAGGTGGACT  
GTTTTGGATTTAACCATGTAATCCATGGGACCAATTGAGAGTCAGCTACTTTTATAGGCATCAAAGTATTCTCAG  
ACACCTTTAATATCTTTATGGAAACTTAATTTTGGCCTTTTATCAATATGTCATAACAGCATTTGGAAGTCAGA  
CATTGTAAATTGAGCTATTAACATAATGAGTTTATGTAAGTTATATGGTCTTAATTGGTACTTGTAATAGC  
ACTAGTTAGACTCTTTAGAATACTCCAAGAGTTAGGGCAGCAGAGTGGAGCGATTTAGAAAGAACATTTAAAAAC  
AATCAGTTAAATTACCATGTAAAAATTGCTGTAAATGATAATGTGTACAGATTTCTGTTCAAATATTTCAATTGTA  
AACTTCTTGTTAAGACTGTTACGTTTCTATTGCTTTTGTAATGGATATTGCAAAAAATAAAAGGAAGAACCCCT  
AAAAAAAAAAAAAAAAAAAA

**FIGURE 483**

MACRPRSPRRHQSRCDGASPPSPARWSLGRKRRADGRRWRPEDAEAAEHRGAERRPESFTTPEGPKPRSRCSDW  
ASAVEEDEMTRVKNEMARYKRKLLINDFGRERKSSSGSSDSKESMSTVPADFETDESVLMMRRQKQINYGKNTIA  
YDRYIKEVPRHLRQPGIHPKTPNFKKYSRRSWDQIKLWKVALHFWDPPAEEGCDLQEIHVPDLESAESSSEPQ  
TSSQDDFDVYSGTPTKVRHMDSQVEDEFDLEACLTIEPLRDFSAMS



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**FIGURE 484**

ATTTAAATTCGCAGCTCAGAGATTACACAGAAGCTGGACACAATTCAGAAGAGCCACCCAGAAGGAGACAAC  
**AATGT**CCCTGCTACCCGTGCCATACACAGAGGCTGCCCTTTTGICTACTGGTTCTACTGTGACAATCAAAGGGCG  
ACCACTIGCCTGTTTCTTGAATGAACCATATCTGCAGGTGGATTCCACACTGAGATGAAGGAGGAATCAGACAT  
TGTCTTCCATTTCCAAGTGTGCTTTGGTCGTGCTGGTCATGAACAGCCGTGAGTATGGGGCCTGGAAGCAGCA  
GGTGGAAATCCAAGAATATGCCCTTTCAGGATGGCCAAGAATTTGAACTGAGCATCTCAGTGTCTGCCAGATAAGTA  
CCAGGTAATGGTCAATGGCCAATCCTCTTACACCTTTGACCATAGAATCAAGCCTGAGGCTGTGAAGATGGTGCA  
AGTGTGGAGAGATATCTCCCTGACCAAATTTAATGTCAGCTATTTAAAGAGAT**TAA**CCAGACTTCATGTTGCCAAG  
GAATCCCTGTCTCTACGTGAACCTGGGATTCCAAGCCAGCTAACAGCATGATCTTTTCTCACTTCAATCCTTAC  
TCCTGCTATTAAAACTTAATCAAACCTTCAAAAAAAAAA

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**FIGURE 485**

MSLLPVPYTEAASLSTGSTVTIKGRPLACFLNEPYLQVDFHTEMKEESDIVHFQVCFGRRVVMNSREYGAWKQQ  
VESKNMPFQDGFELSI SVLPDKYQVMVNGQSSYTFDHRIKPEAVKMQVVRDISLTKFNVSYLKR

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FIGURE 486

CTCGGCGCGCTTTGGGCGCAGGCTCGGCGGGCGGGACGCGCAGCATGCGCGTGGAGGACGAGGGGCTCCGGGT  
CTTCCAGAGCGTGAAGATCAAGATCGGTGAAGCCAAAAACCTTCCCTCTTACCCGGGGCCGAGCAAGATGAGGGA  
TTGCTACTGCAAGCTGAACCTGGACGAGGAGAGTTCCTCAGGACCAAAATTTGAGAAAAGTCACCTGCCCCGTT  
TTACGGAGAAGACTTTTACTGTGAAATTCTCGGAGCTTTCTGCACTGTCTTCTACATTTTCGATAGAGACGT  
TTTCCGGAGGATTCCATCATAGGGAAGGTGGCCATCCAGAAGGAGACTTGCAGAAGTACCACAACAGGGACAC  
CTGGTTCAGCTGCAAGCAGTGGACCTGACTCGGAAGTGCAGGGCAAAGTGCACCTGGAGCTGCGGTGAGCGA  
GGTCATCACAGACACTGGGGTCTGTGCCACAAGCTCGCCACACGCATCTGCGAGTGCCAGGGCCCTCCCATCTGT  
GAATGGCAATGTGACCCTACGCCACCTGACGCTGGCAGGACCTTCAGATCAGAAGCAAAGAAGACGAAAGT  
GAAGAGGAAGACCAACAATCCCCAGTTCGATGAAGTGTTTATTTTGGAGTGACCCGGGCCCTGTAGCTACAGCAA  
GAAGTCCCACTTTGACTTTGAGGAGGAAGACGTGGACAAGCTCGAAATCAGAGTTGACCTTCGGAATGCCAGTAA  
CCTGAAGTTTGGAGATGAATTCTTGGGAGAACAAGGATCCCGTTGAAAGTCCTGCGGCAGTCCAGCTCCTACGA  
GGCGTGGTACTTCTCCAGCCCCGGGACAAATGGTAGCAAGAGCCTTAAAGCCAGACGACCTGGGTCTCCGTGGGT  
GAACGTGGTATACACGGAAGACCACGTGTTTCTTCTGACTATTACAGCCCTCTGCGGGACCTGTGTTGAAGTC  
TGCGGATGTGGAGCCGTGTGACGCTGTGCGGCCACATCTCGGCGAGGTTTTCGCGGAGAGAAGCAGGAGCGCGC  
CGTCCCGCTGGTGGCGCTTCTTACACTATGGCAGGGTGGTGCCATTCACTAGTGCCATCGCCAGCGCGGAGGT  
GAAGCGGACCCAGGACCCCAACACCATCTTCCGAGGAAACTACTGGCTTCAAGTGCATTGACGAGACCATGAA  
GCTGGCGGGGATGCATTACCTGCATGTACCCCTGAAGCCCGCCATCGAGGAGATATGCCAGAGCCACAACCCCTG  
TGAAATCGACCTGTGAAGTTGAAAGACGGAGAAAACCTTGAAACAACATGGAGAACCTACGCGAGTATGTGGA  
CCGCGTCTTCCACGCCATCACCGAGCTGGGGTGAGCTGCCGACCGTCACTGTGTGACATCTTCTTCTCCCTCCG  
GGAGGCGCGCGCCAAAGCGCTTCCAGGATGACCCGAGCTCAGGTACACTGCAGTGAGCAGCTTCACTTCTCTGAG  
GTTCTTTGCGCCCGCATCTCTCCCCAACCTTCTCCAGCTCACGCCGACCCACAGGACCCCCAGACGCTCCAG  
GACGCTGACATTGATCTCCAAGACCGTTACAGCCCTCGGCAGCTGTCCAAGTCCAAATCTGCGAGTTTAAAGGA  
GTCTTACATGGCTACATTTTATGAATCTTCAATGAGCAGAAAATGCTGATGCGGTGAAGAACTTCTTGGATCT  
GATTTCTGCTCTCGGGGAGAAGAGACCCCAAGAGTGTGAGCAGCCATCGTGCTTAAAGAAGGGTTTCATGATCAA  
GAGGGCCCAAGGACGGAAGCGCTTTGGGATGAAGAAATTTAAGAAGAGATGGTTTCGTTGACCAACCATGAATT  
TACCTACCACAAAGCAAAGGGGACCGCTCTCTACAGCATTCACATCGAGAACATCTTGGCAGTGGAAGCT  
GGAGGAGGAGTCTTTCAAATGAAAAACATGTTCCAGGTATCCAGCCAGAGCGGTGCGCTGTACATCCAGGCCAA  
CAACTGCGTGGAGGCCAAGGACTGGATCGACATTTCTACCAAAGTGAGCCAGTGAACCCAGAAGCGCTCACCGT  
CTACCAACCGTCCGCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGACTCGGCTCCGGGCTGCTC  
GCCCTGCACTGGCGGCTCCAGCCAACATCCAGCTGGACATTGATGGGACCGTGAGACGGAGCGTATCTACTC  
CCTCTTCAACTGTACATGAGCAAGCTGGAGAAGATGAGGAGGCTGTGGGAGCAAATCTGTGTATGAGGCC  
GGAGCAGGAGAGTATTCCGAGCTTCGTCTATTGACGACCCGAGGAGACCTACAAGACGCTAAAGCAAGTCAATCCG  
CTGGGTTGGGGCTTTGGAGCAGGAGCACGCCAGTATAAGAGGGACAAGTTCAAGAAGACGAAATATGGAAGCCA  
GGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACCTCCACTCATTCCATTTA  
AGCTCGCGGACGCGCC

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**FIGURE 487**

MAVEDEGLRVFQSVKIKIGEAKNLPSYPGPKMRDCYCTVNLDAQEEVFRKIVEKSLCPFYGEDFYCEIPRSFRH  
LSFYIFDRDVFRRDSIIIGKVAIQKEDLQKYHNRDTWFQLQHVDADSEVQGVHLELRLSEVITDTGVVCHKLATR  
IVECQGLPIVNGQCDPYATVTLAGPFRSEAKTKVKRKTNNPQFDEVFYFEVTRPCSYSKKSHFDFEEDVDKLE  
IRVDLWNASNLKFGDEFLGELRIPLKVLROSSSYEAWYFLQPRDNGSKSLKPDDLGSRLRLNVVYTEDHVFSSDY  
SPLRDLKLSADVEPVASASAAHILGEVCREKQEAAPVLVRLFLHYGRVVPFISAIASAEVKRTQDPNTIFRGNL  
ASKCIDETMKLAGMHYLVTLKPAIEEICQSHKPCIDPVKLDGLENLNNMENLRQYVDRVFHAITESGVSCPT  
VMCDIFFSLREAAAKRFQDDPDVRYTAVSSFIFLRFFAPAILSPNLFQLTPHHTDPQTSRTLTLISKTVQTLGSL  
SKSKSASFKEYMATFYEFFNEQYADAVKNFLDLISSGRRDPKSVEQPIVLKEGFMIKRAQGRKRFGMKNFKK  
RWFRLTNHEFTYHKSQGDQPLYSIPIENILAVEKLEEESEFKMKNMFQVIQPERALYIQANNCVEAKDWIDILTKV  
SQCQKRLTVYHP SAYLSGHWLCCRAPSDSAPGCSPTGGLPANIQLDIDGDRETERIYSLFNLYMSKLEKMQEA  
CGSKSVYDGEQEYEYSTFVIDDPQETYTKLQVIRWVGALQEHAQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQ  
QSETSTHSI

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**FIGURE 488**

GCAGTGTCTCCCGTGC GCGTGGAGGTCGGTGCCTCAGAGCTGCTGGGCGCAGTTTCTCCGCCCTGCTGCTTCGG  
C GCGGCTGTATCGGCGAGCGAGCGAGTTC CCGCGAGTTC TCGGTGGCGCTCCCCCTTCCTTTTCACTCTCCACGGGA  
CTGGCCCCCTCGTCTCTACTTTGACCCGCTCCCGCTCTTCCGCCGCTTCTGGCGCTTTCGGTTGGGCCGATTCCCG  
CCCGCTTCCCTCGTTCCTCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAGATGAACCAGATTATGA  
TGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAAGGACTTGATTACATCATTTTCAAGCCTGATTAGT  
TTTGGAAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTC AACCCACCTGTCTCATACCTTGACGAAGTGC  
ACCTTTTAAACATCCTTTGTCTCTGGATTACTTAAGAGTTC CCGAGAAATACATTTTGGCCACCAACAGATGAGCAA  
ATTTATAAGGAAAAATGATTCCCAATGGATATTGATGTTTGAGGATGAAAAATTTATTGAGTCTTCTGTTGCCA  
AATTAAATGCCCTGAGGAAAAAGTGGCCAGTTCTGTGATGTTGCAGCTTCAGGTCTGTGGCCATGAAATGTTAGCAC  
ACAGAGCAGTGTAGCTTGCTGCGAGTCCCTATTATTATTTGAAATCTTTAATAGTGATAGTGATCCTCATGGAAATTT  
CTCAGCTTAAATTTGATGATCTCAATCCAGAAGCTGTGGAAGTCTTGTTGAATATGCTACACTGCTCAGTTGA  
AAGCAGATAAGAATTTGAAGATGTTTATCTG CAGCAAAAAAGCTGAAGATGGATCGAGTAAAGCAGGTTTGTG  
GTGATTATTTACTGTCTAGAATGGATGTTAC CAGCTGCATCTCTTACCGAAATTTTGAAGTTGTATGGGAGACT  
CCCCTTTGTGTAATAAGGTTGATGCTTATATTCAGGAGCATTGTGTACAAATTTCTGAAGAGGAGGAGTTTCTTA  
AGCTTCCAAGGCTAAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCC CAGCAATGGCAAATTATATACAA  
AGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGCTCGGAAGAGCTGATGGAAGAGGTTCAAA  
CCTTGTA CTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAGGCTGAGGTGTTTGGCAGTG  
ATGATGCCACCTTCAGTTTGTGCGAAAAAGCCACCACGTGAGAATGGCCATAAGCAGATAAGTAGCAGTTCAA  
CTGGATGTCTCTCTTCTCCAATGCTACAGTACAAAGCCCTAAGCATGAGTGAAAAATCGTTGCTTCAGAAAAAG  
CTTCAAATAACACTTACTTTGTGCTTGCTGTGCTGGATGGTATATTCTGTGTCATTTTCTTCATGGGAGAAAA  
GCCCAAGAGCTCACCACCAAGTACTCCAAACTAAGTAAGAGTTTAAGCTTTGAGATGCAACAAGATGAGCTAA  
TCGAAAAAGCCCATGTCTCCTATGCAGTAGCCACGATCTGGTCTGGGAACAGCAGAGATGAATGGCAAACTCATAG  
CTGCAGGTGGCTATAACAGAGAGGAATGCTTCCGAACAGTCGAATGCTATAATCCACATACAGATCACTGGTCTCT  
TTCTTGCTCCCATGAGAACCAACAGAGCCCGATTCAAATGGCTGTACTCATGGGCCAGCTCTATGTGGTAGGTTG  
GATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGATGATTCAAACATAGATGACTGGATTCTCTGTT  
CAGAAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTATACATCGTTGGTGGCTCTG  
ATCCATATGGTCAAAAAGGACTGAAAAATTTGTATGTTATTTGATCCTGTAACAAAGTTGTGGACAAGCTGTGCCC  
CTCTTAACATTGGGAGACACCACTGTCAGTCTGTGAGCTTTGGTGGTTATTGTACATAATCGGAGGTGCAGAAT  
CTTGGAATTGCTGTAACACAGATAGAACGATACAATCCTGAAAAATAATACCTGGACTTTAATTGCACCCATGAATG  
TGGCTAGGCGAGGAGCTGGAGTGGCTGTCTTAAATGGAAGAACTGTTTGTATGTTGGTGGCTTTGATGGTTCTCATG  
CCATCAGTTGTGTGGAATGTATGATCCAAC TAGAAATGAATGGAAGATGATGGGAAATATGACTTCACCAAGGA  
GCAATGCTGGGATTGCAACTGTAGGAGCAACCACTTTATG CAGTGGGAGGATTCGATGGCAATGGAATTTCTGAATA  
CGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCTATACAAAGATTTTCCAGTTTAAACAAATTTAAG  
ACCCCTCTCAAACCTAACAGGCTTAGTGATGAATATGGTTAGTAGAGGTACACTTGTGAATAAAGAGGGTGGGTG  
GGTATAGATGTTGCTAACAGCAACCAAGCTTTTGATATG CATACTATTAACATGCTGTACATACTTTTGTG  
GGTTATTATTGGAAGGAATGCAAGATGAAGGTCTGTTTGTGACTTTTAAAGACTTTGGTTATTTTACTTTTTG  
GAAAAAATAAACCAAGAATTATTGGGCACATCATTTCAAGAAGTCCCTCTCTCCACATTGTTTGGCCAAAT  
TGCACATTAAAGACTCTTCCCTGCT

**FIGURE 489**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRVLAACCSPLYLFEIFNSDSDPHGISHVKF  
DDLNP EAVEVLLNYAYTAQLKADKNCKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLLN  
KVDAYIQEHL LQISEEEEF LKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLIYYS  
ADHKLLDGNLLDGAEVFGSDDDHQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKH EWKIVASEKTSNNT  
YLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLI AAGGY  
NREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELRT  
NRCNAGVCALNGKLYIVGGS DYPYGOKGLKNCDVFDVTKLWTSCAPLNIRRHQS AVCELGGYLYIIGGAESWNCL  
NTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAGI  
ATVGN TIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIFQF

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FIGURE 490A

GGCATGGAACCTAAAGACTAGAGGCGGTTGTGTGAGTACAGGAAGAGGGGCCAGATATCTGAGTGTTCCTCTTTAG  
TTTCTTCAATTGCAGATAATATGGTGTCTAATTTTATGTGTTCAGGAAGACAGTGGTTCCGTACTCAGGAAGA  
CAGTCTCAGAAAACATGTGGGAATGATATTGAGTGTCTAACAAATGATGATACCGGAAGTGGGTACGTGAGTGTCCG  
TTCAAGAAAAGAACATGGAAGTGCCTTTATATCAAGTAGATTGCTAGTGAAGATCTCTCTGAAAAGGCCCTCATT  
AAATCTCAAGAGTACAGGCAAGTACGCTTTAAGTGTATGGGTTTATTATTGTAGCCGACCAATCAGTGATATTGCTTGA  
CAGTATTGTAGATACCTTCAATTGCAATCTTGCTCTTTGATACTGAAGTGGATGTAGTTTGGCCCTTTGTCAAGAAGG  
AAAGTTTCTTTGGTTGGCGAGAGAAGTGGCAACCTACATCTTATCTAGTAAACATCTCTCTGAAAAGGCCCTCATT  
TAATGCAATTTGTTTCAGAAAGCTAACGATGAAAACTCGCGGACCTTACCAGAATCTTGTCATTGAGAAGGATGGTTC  
AAATGAAGGTACCTATTATATGTCTACTTCTTACATACAGTGGATTTTTTGTATTACAAAACCTTCAGCTTTTAAA  
AATTCAACAAGCAATTGAGAATGTAGACTTCAGTACAGCAAAAAGTTACAAGGACAAATCAAGTCCAGTTTTAT  
TTCTACTGAAAATTATCATACTCTTGGTTGCTCTCAGTCTTGTGGCTGGAGATTAGCAAGTGAAGTTCCTGTGTAT  
AATTGGGGGAACCGGTAATTGTGCACTTCAAAATGGGAACAGATTCTTCAAGAAAGGAATGACAGTTAAGAA  
CCTTATTGATGCAGAGATTATTAAGGTCGCAAGAAAGTTCAGCTGATAGACAATCTACTTTTTGTCTTGATAC  
TGATAACGTGCTGAGTTATGGGATATTTACACTCTAATCCTGTATGGAACTGGCCCTCTCTTCACGTAGAAGA  
GTTGCTTCTTACTACAGAAGCAGACTCTCCCTTCATCAGTCACGTGGCAAGGAATTACAAATCTCAAATTAATAGC  
TTCAGCACTTCAGCTTACGTAAGAGTGAAGAAACCTCATGGTTTATTCTATTACCTACAAGTGAATGACTATATATTC  
TTTGGAAAGTATCTAGTGTCTTCTCTCGTCCAAACAGGAATTAGCACAGATACCATATACCTTTTAGAAGGAGT  
TTGCAAAAATGATCCAAATTTGCTGGAAGACTCAGTCTCTGTGTAGTACTCAGATGTCTTACGGAAGCTTTTACC  
AGAAAACAGATTGAGTCGGTTACTTTCACAAACAGAGATTGTGCTGAAGCTGAGAGTTTGGCATTGAGTTTGGACT  
AGATGTTGAGCTTGTTTACAAGGTCAAGTCAAATCATATATTGGAGAAACTGGCATGAGTTCTGTGGATGGCAG  
TGAACAGACCCGAATGGCAACAATTTGTAGACGACGCTAAGGAAAATCTACATAAGATCCAGGATGATGAATTTGT  
GGTGAATTAATGCTGCTGAAAGCTCAGTGGATAACCTATGAAACCACCAAGAGATGCTGAATTTATGCCAAAACAG  
GCTTTTGAAAGAAAGATAAAACTGCTCTCATTTTATTCGTATGGCTGAAAGAGGTGCTAAGAGCTCATGCAAA  
ATTGACTACTTTTTATGGAGCAATTTGGACCAGAAAAATTCAGTGGCAGTTCTTGGATTGAATTTCTAAATAATGA  
AGATGATCTTAAAGATATTTTTTACAGCTAAAAGAAGGAAACCTTGTGTTGTGCACAGTATCTTTGGCTTCGACA  
TCGGGCAAACTTTGAAAGCAGATTGATGTGAAAATGCTGGAGAGCTTGCTCAACTCAATGTCTGCATCAGTCTC  
TTTGCAAAAGCTGTGTCATGGTTTAAAAATGATGTATTCATTGTAAGAAGGACTGTGCTGGAAGGACAGAT  
AATCTTTCGCAAAATGGTTGGAACAAGCAGCCAGGAACCTTGAATTAACGTGATAAGGCAAAATGGCCAGAAAATGG  
ACTTCAATTGGCAGAGATATTTTTTACAGCAGAAAAACAGACAGAGTGGGATTGGCATCTTCTGGCATTGGAT  
TTCTTTGAAAGATTATCAGAACAAGAGGAAGTATGTCTCAGCTAAGGACTTTGGTAAATAACTTGGCAGAGTTGAT  
CACGTTGCATAGGAAGTACAACCTGCAAAATAGCCCTCTCTGATTTTGAGAAGGAAAAATACAACCCACCATAGTGT  
CCGAATGTTTGATAAGTGTCTGGCCCCAGAGCTTATTCCTCCATCTTGAAGAAGTTTATAAGAGTTTACATGAG  
AGACATGACTCTGCAAGAGGAGGAACCTTCTTGCTGTACATAGAGGATTACTGAATAGATGCAGCTCAAAGTC  
CACATCACTCTTTGAAACAGACTGGGAAGCAAGGCCATGGCAGTAATAGCGTGTTTATCTGCACCGGACCTCAT  
ATTGTATGCCGTGCTCAAGATCATGTGCGGCAGTGGTTCTTGGAGTGTGGGACAGCTGTGGAGGAGAAACA  
GCACCTGGAATGGACCATCCCAAAGTCAAGTTATTACAGGAAAGTTACAAACTAATGGAGATGAAAAAATTTT  
ACGAGGCTATGGAATAAGAGAGGTAACATCTCTTAAACAAGGAAATATAGAGTGGTTAGATACATTTCAAAACA  
AGATGTCCCATCTTCTTTAGAGATGCTTTAAAGGTAGCCCAAGCGTTTAAAGTATCTGTATCTGTAGATGAGATCAG  
TCTAAGAAATTATGACCTGATTGATAGAGAACAGGGTGAAGACTGCTCCTCTCTGTAAGTCTTTGGCTCCTGTC  
TGAAAGCTGAGAAAACCTGCAAGAAAGTATCATATAGGGCAGCAGCTGGCATTACAAGAGAGCCAGATCATTCTAA  
AGAGGGCAAGGCTGGAGAAATGCTGTAGCGAAGACATCCGTGGACATTCTTAAGACTATGTGACATTGACAA  
AGACAATCTGCAGAGAAGAGCGAATGTGAAGAAATGTTGAAACTATTTAAAGAGGTTGCTAGCTTACAGGAGAA  
CTTTGAGGCTCTTTCTTTCATTGGAAGATTATAGCAATAGTTCCCTGGTAGCAGATCTCCGTGAGCAGCACATTAA  
AGCTCAGAAAGTTGACAGGCGAAGCAACAACTGGGAGCAGCCAGCCGATGACTGCTGAGGTGAGGAGCC  
AAGCATGGAATCAAGCTGCACAGACAGGCACCTGGCCCTGCGATGTCCAACAAGAGCTGGAGGCGAGAGCTGAC  
CTTGAGAGCCTTAAAGATGGTAACATCAAAACAGCAGTAAAAAATGCAGCGCACTTGTTTAAGTATCACTGCAA  
TGCTGACACTGGGAAATGCTTATGATGTGAGATGTGAGAAGCTTTGTGACATGTGGCTGATAATGTCCCAAGTAC  
AGTGCCTGTGGGACTGAATCTTCCTTCATGATACATGATCTAGCAAGCCAGAGCTGCCACCAATTTGCAGTCCAGA

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**FIGURE 490B**

TTTTTACTAGATGCTTTAGAAGTATGTAAACATACCTTTAATGGCTGTAGAGCTTTCCAGACAAATGCCAAATGGA  
TGACTGTGGAATCCTCATGAAAGCTCTCTTTGGGACACATAAAGATCCATATGAAGAGTGGTCTTACAGTGACTT  
CTTCAGTGAAGATGGAATTTGTTCTTGAGTCACAGATGGTGCCTCCAGTGATTTATGAAGCTGATTTTCATCTCTGT  
GCCTCTAGCTGAAAGCAAGATATCCCTTGGAGTCTACCAAGTTTGCCTATCTGCTCCCTTAATGAAGAGATGG  
CCTTGTTTTACCTGTTATAAAATCCATCTCTGCCCTGCTTCAGAATCTTCAGGAATCTAGCCAGTGGGAGCTAGC  
CCTAAGATTTTGTTGGTTGGTTCATTTGGTACCTGTCTTCAGCACTCTGTGTCAAACTTCATGAATGCCACTTTGAG  
TGAAAGTTATTGGAGAGACTACATAGTTAAATCAAGGCATGTTGTTATGGAATTGAAAGAAAAGAGATGTTAT  
ATTTATCAGGGAATAATGCTACAACACTACTGCACAAAGTATTTAATTTGTCGCTTGGTAGATCTTGACCTGGCGTT  
GGGTTACTGCATCTCTTACCTCAAAAAGATGTGTTGAAAATCTCTGGAAGCTCATAGATAAAGCATGGCAGAA  
TTACGACAAAATCTTGGCAATCTCTGGTGGGCTCGAGCTGGCAAGTCTCTATCAGGAAAATAGAAAATGGGGCT  
TAAGTTCCTGTGAAGCTCAGTACTGATGCCCAGTGGGGCATTGCTCTTGGTAAACTTGGTATTTCTTTCAACCACT  
TTTCAGGCAACATTTTCTACCAAGAAAGACCTCATTAAGCTCTTGTGGAGAATATAGATATGGACACAAGCCT  
CATTTTGGAAATATTGCAGCACATTTTCAGTTGGACTGCGATTCCTTCAGCTCTTCCATTGAAAACGCTGCTCCA  
CAACACAAATGCCGGCCAAAGCCAGGGAGATGCAAGCATGGACTCTGCAAAAGCGGGCAGTCCCAAACCTCTGGC  
CAAGCCCTTGAGATGGTTCCCTTCTGACGAGCACAAAAGATTGGGTATCAGCTTTAGTGGAAATACTACATAA  
GTTGGATCCTTATGACTATGAAATGATTGAAGTTGTCTTGAAGTTATAGAAGAGCTGATGAAAAGATAACCAA  
TATTAATATTAATCAGGACATGAGTATTTCTGAAACATTTGAAGTCATACAGAGAATTTCTCTCTCCCGTGGATCT  
AGAATATCAGTATATGTTGGAACATGCTATAACTTTGCCATCAGCTGCCCAAACCTAGACTGCCTTTTTCACCTGAT  
ATTCTTTGGCAGCAGCACAGAAGTTCTTGAAAAATCTCTCTACAGAAGCTCAGTGAAGAAATCTTTCCCAACATTGCT  
CTTAATTTGCAAAATTAATGAAGTTCTCTCTGGACACTCTGTACGTGTCTACAGCAAAACACGTTTTCGAAAAA  
ACTGAAGCCAAAGCTCCTGAAAGTTAAACACAAGCTAAATCTCTCAACACTGATTAACAGGAATAAATAGATCAC  
GCAGACCATCGAATCTGCTTACTCTCTATAGTCAACCCAGAGTGGGCTGTAGCTATTGCCATCAGCCTTGCCCA  
GGATATCCCTGAAGGTTCCCTCAAGATATCTGCTTTGAAATTTGCGCTTTATTTAGCTGAGAGATGGCTACAGAA  
TATCCCATCGCAGGACGAAAACGTAAGAAAGCCGAGGCTTTGTTGAAGAAGCTTCATATCCGATACCGGCGATC  
GGGCACAGAAGCTGTGCTCATAGCCCAAGAGCTGAACACTGAGGAATATTTAAGAGTGAATCGGAAAGCCAGCACA  
TCTTATTGTGCTCTACGAACATCCTAGCATCAATCAAGAATTTCAGAATTCATCTGGCAGAGATTTCTCTGA  
TATTCATGCAGCAGCTAAGAAAATAGCCGAAGTCAATGAAATTAATTTGGAAGAAAGCTCGGGACATGTTGTTGGA  
AAAATGGCTATGCCCTTCAACAAAACCTGGTGAAGAAACCATCAGAATATTTGAAGTTCAAGAAGATGAAGCCCT  
ACGAAGAGTGCAGTATCTCCTCTGCTGCTCCAATTGATTATAGTTCAGAAGATGCTGTTGTTGATTGCAACATC  
AAGTACAACCATAGTAGTATGCATCAGTTAACTTTTGCCCATAGAAGCTCAGGCTCTTCAGTGTCTCTCTATTT  
GGCTGACAAGGAAGATCATAGAATCTCTCTTAAAAAACCCATTGAAGAAGTGAATCTTATTTGAGATGTATAAC  
TTTTCTGGCATCAATTGAGACTTTGAATATCCCATCACATAGAATTTATTTGAGCAGTCTCTAAGAGAGGAAT  
GATTAAGGGTCTGTGGAAGAAACACAGCCACGAGTCCATGGCAGTAAGATTGGTGACTGAGCTGTGTTTGAATA  
CAAAATCTATGACCTGCAAGCTTTGGAATGGACTCTTGCAAAAGCTTCTGGGCTTCAATATGATTCCTTATCTAAG  
GAAAGTTTAAAGCGATCTCCAGTATCCATCTTTATGTCAGGTTCCCTACTTCAGCAAGAGCTGGCAGCGGTG  
GATACAGATACCACTGCTTTCAGCCTCTTGCTCTTAAGTCTGATCAGCTGTCAGATTTGTTCTGAGAGTCTCAT  
CGCTGTCTCGAATGTCAGTCTCAGGTGATCTTGACCTGATCGGAGTCGCCAGGCAGTATATCCAGTTAGAAGT  
TCGGGCTTTTGCAATAGCTTGCTGTGATGCTCATGCCCACTCAGAGAAAAGACCCAGCAAAATTAAGAAATTTCT  
GGGTTCTCTGTGACCTCAGGTTATTTTAAAGCAATTGGAAGAGCATATGAACACGGGCCAGTACGAGGATTTA  
ACATCAAAATAGAAGTCTGATTTTGAATAATATCATCAATAAGAAGGAGTTTGGGATTTTGGCAAGACCAATA  
CTTTCAAAATGTTGAAGATGCATGAATACCAACATATCTAGCTAGTGAACATTTTGGCAAAATGACTT  
AAGTTTAGATGAAGCTCAGCTTGTGATAACTGAATATTCAAGCACTCGGGGAAACCTGTGCTCCAGACACTGC  
TCCCTGTGAAATCTGAAGATGTTTCTTAGTGGATTATCGTAAATCTCAGTAACCTTTTTTTCAAGAGGACAAAG  
ATTTTGGAGTCTGCTAATTAATGGAACATATTTATTACAGTTTTTAAATTTGACAAATCTCTGTATTATAGCTATTT  
GCTCAACATTATCCCAACATGTAATAAATAAACAATATGACG



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FIGURE 491

MWNDIELLTNDTGGSYLSVGSRKEHGALYQVDDLVLKISSEKASLNPKIQACSLSDGFIIVADQSVILLDSICR  
SLQLHLVFDTEVDVVGLEQEGKFLLVGERSGNLHLIHVTSKQITLLTNAFVQKANDENRRTYQNLVIEKDGSGNEGT  
YYMLLLTYSGFFCITNLQLKIQQAIEENVDFSTAKKLQGGQIKSSFISTENYHTLGCLSLVAGDLASEVPVITGGT  
GNCAFSEKWEPDSSKSGMTVKNLIDAEIKGAKKFQIDNLLFVLDTDNVLSLWDIYTLTPVWNWPSLHVVEEFLLT  
TEADSPSSVWQGITNLKLIALTASANKMKMNLVMSLPTMEILYSLEVSSVSSVLQGTIGSTDTIYLLLEGVCKND  
PKLSEDSVSVLVLRLCTEALPENRLSRLLHKKHFAEAESFAIQFGLDVELVYKVSNNHILEKLALSSVDASEQTE  
WQQLVDDAKENLHKIQDDEFFVNYCLKAQWITYETTQEMLNIAKTRLLKKEDKTALYSISDGLKEVLRHAHAKLTTF  
YGAFGPEKFSGSSWIEFLNNEDDLKIDFLQLKEGNLVCAQYLWLRHRANFESRFDVKMLESLLNSMSASVSLQKL  
CPWFKNVDVIFVRRITVPEGQIILAKWLEQAARNLELTDKANWPENGLQLAEIFFTAEKTDDELGLASSWHWISLKD  
YQNTTEEVQCLRTLNNLRELITLHRKYNCKLALSDFEKENTTIVFRMPDKVLAPELIPSILEKFIRVYMREHDL  
QEEELLLLYIEDLLNRCSSKSTSLFETAWEAKAMAVIACLSDDTLIFDAVLKIMYAAVVPWSAAVEQLVKQHLEM  
DHPKVLLQESYKLMEMKKLLRGYIGREVNLLNKEIMRVVRYILKQDVPSSLEDALKVAQAFMLSDDEIYSLRII  
DLIDREQGEDCLLLKSLPPAEAKTAERVIWARLALQEEPDSHKEGKAWRMSVAKTSVDILKILCDIQKDNLQ  
KKDECEEMKLKLFKEVASLQENFEVFLSFEDYSNSSLVADLREQHIKAHEVAQAHHKPGSTPEPIAAEVRSPMS  
KLHRQALALQMSKQELEAELTLRALKDGNIKTALKKCSDLFKYHCNADTGKLLFLTQCKLQMLADNVPTVPVG  
LNLPSMIHDLASQAATICSDFLLDLAELCKHTLMAVELSRQCQMDDCGILMKASFGTHKDPYEEWSSYDFFSED  
GIVLESQMVLVPIYELISSVLPLAESKRYPLESTSLPYCSLNEGDLVLPVINSISALLQNLQESSQWELALRFV  
VGSFGTCLQHSVSNFMNATLSEKLFGETTLVKSRHVVMELKEKAVIFIRENATTLHLKVFNCRLVDLDLALGYCT  
LLPQKQDVFNWLKLDKAWQNYDKILASISLVGSELASLYQEIMGLKFRELSTDAQWGIKGLGISFQPFVRQH  
FLTCKDLIKALVENIDMDTSLILEYCSFTQLDCDAVLQLFIETLLHNTNAGQGQGDASMDSAKRHRPKLLAKALE  
MVPLLTSTKDLVISLSGILHKLDPDYEMIEVVLKVIERADEKITNININQALSILKHLKSYRRISPPVDLEYQY  
MLEHVITLPSAAQTRLFPHLIFFGT AQNFWKILSTELSEESFPTLLLSIKLMMKFSLDTLVYSTAKHVFEKKLKP  
LLKLTQAKSSTLINKEITKITQTIESCLLSIVNPEWAVAIASLAQDIPEGSFKISALKFCLYLAERWLQNI  
DEKREKAEALLKHLHIYRRSGTEAVLIAHKLNTEEYLRVIGKPAHLIVSLYEHP SINQRIQNSSGTDYPDIAHA  
AKEIAEVNEINLEKVDMLLEKWLCPSTKPGKPSSELFELQEDEALRRVQYLLLSRPIDYSSRMLFVFATSTTT  
LGMHQLTFAHRTRALQCLFYLADKETIESLFFKKPIEEVKSYLRCTIFLASFETLNIPIYELFCSSPKEGMIGL  
WKNHSHESMAVRLVTELCLEYKIIDQLWNLQKLLGFGNPIYLRKVLK

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**FIGURE 492**

GAGAGACTGGATGGACCCACAAGGGTGACAGCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGGATG  
CCAAAAAGAGGCTGACGGCAACTGGGCCTTCTGCAGAGAAAAGACCTCCGCTTCACTGCCCGGCTGGTCCCAAGG  
GTCAGGAAGCATGGATTTCATACCTGCTGATGTGGGGACTGCTCAGCTTCATCATGTGCCTGGCTGCCAGGCAGAG  
CTCTGTGACGATGACCCGCCAGAGATCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTG  
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAAACTCTAGC  
CACTCGTCTCGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACACAGAAACAAGTGACACCTCAA  
CCTGAAGAACAAGAAAGGAAAACACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCA  
GGTCACTGCAGGGAACCTCCACCATTGGGAAAATGAAGCCACAGAGAGAATTTATCATTTCTGTGGTGGGGCAGATG  
GTTTATTATCAGTGCCTCCAGGGATACAGGGGCTTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC  
GGGAAGACAAGGTGGACCCAGCCCGCTCATATGCACAGGTGAAATGGAGACCAAGTCAGTTTCCAGGTGAAGAG  
AAGCCTCAGGCAAGCCCCGAAGGCCGTCTGAGAGTGAGACTTCTGCCTCGTCAACAACAGATTTTCAAATA  
CAGACAGAAATGGCTGCAACCATGGAGAGCTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT  
TTCTGTCTGATCAGCGTCTCTCTCTGAGTGGGCTCACTGGCAGCGGAGACAGAGGAAGAGTAGAAGAAACAATC  
**TAG**AAAAACCAAAGAACAAGAATTTCTTGGTAAGAAGCCGGGAACAGACAAACAGAAATCATGAAGCCCCAAGTGAA  
ATCAAAGGTGCTAAATGGTCGCCAGGAGACATCCGTTGTGCTTGCTGCGTTTGAAGCTCTGAAGTCACATC  
ACAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT  
AAATAGCAATTTTCGCGTTGAAGGAGGAAGGGCAAAACCATAAGAACTCTCCATCTTATTTTCATGTATATGTGTT  
CATTAAGCATGAATGGTATGGAACCTCTCCACCCTATATGTAGTATAAAGAAAAGTAGGTTTACATTCATCTC  
ATTCCAACCTCCAGTTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACACTCTACC  
CTATACAACCTGGACATTTGCTGCGTGGTTCCTTTCTCAGCCGCTCTGACTGCTGATTCTCCCGTTCACGTTGCC  
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC  
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACTTCA  
AAACGGGGCAGCCAAACCCATGAGGCAATGTGAGGAACAGAAAGGATGAATGAGGTCCAGGCAGAGAAATCATACT  
TAGCAAAAGTTTACCTGTGCGTTACTAATTGGCCTCTTAAAGATTAGTTTCTTTGGGATTGCTATGAATGATAC  
CCTGAATTTGGCTGCATAAATTTGATGTTTACAGGTGGACACACAAGGTGCAAAATCAATGCGTACGTTTCTCTGA  
GAAGTGCTCAAAAACACCAAAAAGGGATCCGTACATTCAATGTTTATGCAAGGAAGGAAAGAAAGGAAGAGTGA  
AGAGGGAGAAGGGATGGAGTGCACACTGGTAGAAGTAAACCGGAAAAGAGCGCATCAGGCCTGGCACCGTGGC  
TCAGGCCTATAACCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTTTCAGGCCAGGAGTTTGAGACCGCCT  
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTTGGCTGGATGTGGTGGCATAACGCTGTATGCTCTA  
GCCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA  
CTGCATCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAGACAAAG

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**FIGURE 493**

MDSYLLMWGLLTFIMVPGCAELCDDDPPEIPHATFKAMAYKEGTMLNCECKRGFRRIKSGSLYMLCTGNSSHSS  
WDNQCQCTSSATRNTTKQVTFQPPEEQKERKTTMQSPMPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY  
QCVQGYRALHRGPAESVCKMTHGKTRWTPQLICTGEMETSQFPGEKFPQASPEGRPESETSCLVTTTDFQIQTE  
MAATMETSIFTTEYQVAVAGCVFLISVLLLSGLTWQRRQRKSRTI

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**FIGURE 494**

AGCTCAGCAGGACCTCAGCCATGAGACTTCTCATCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTG  
TGGAAAGGTGTAGGGAGTGAAGTCTCAGATAAGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCGGTTAGCA  
GAATCAAGACCTACACCATCACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAACGTGGCCTAAAAGTCT  
GTGCTGATCCACAAGCCACATGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACA  
TGATCCAGACCAAGCCAACAGGAACCCAGCAATCGACCAATACAGCTGTGACTCTGACTGGCTAGTAGTCTCTGG  
CACCTGTCCGTCTCCAGCCAGCCAGCTCATTTCACTTTACACGCTCATGGACTGAGTTTATACTCACCTTTTAT  
GAAAGCACTGCATGAATAAAATTATTCCTTTGATTTTTACTTTTAAATGCTCTTCTGTATTCATTATATGTTCT  
AATTAATAAATTATTTATTATTAAGAATAGTCCCTAGTCTATTCAATTATATTTAGGGAAAGGTAGTGATCATT  
GTTGTTGATTTCTGACCTTGTACCTCTCTTTGATGGTAACCATAATGGAAGAGATTCTGGCTAGTGTCTATCAG  
AGGTGAAAGCTATATCAATCTCTCTTAGAGTCCAGCTTGTAATGGTTCTTTACACATCAGTCACAAGTTACAGCT  
GTGACAATGGCAACAATTGAGATGTATTTCAACTTGCTCTATAATAGAATTCTGTTTATAGAATAAGGGAGAA  
AATAATCCAGTCTTCACTGGGTTCCTATCTGAGGGTCCACTACTCAAAAATTTGCTTCAC TCAATTTTTTTCAC  
CTCTTTGTGTTTTATTTTGGTGTCCTATTAAAGGAATAAAATGACACAACCTTGTCCTTTTTTGTCCCATTAGCA  
AAAATTAGAATTTTGGTATAAAGAACTTTATTCAAGTAAAAATCAATACCCCTTTGAATTGGACAATAATCTCAC  
TACCTTATTAGGATTTCTGATTTGCCATTACGCTAGTTATCATGCATGTTATGCTTTTACTGCGAATAAGCTTTT  
AATGCTCCAAATGCTGACCCATGCAATATTTCTCATGTGATCACAATTTGCAGTAACTTTTAATTAATAGCTC  
ATCTGGTAACTCAACACCCCG

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**FIGURE 495**

MRLILALLGICSLTAYIVEGVGSEVSDKRTCVSLLTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT  
WVRDVVRSMDRKSNTRNNMIQTKPTGTGQQSTNTAVTLTG

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FIGURE 496A

ATTGCTAAGCCATCCTTCAGACAGAGAGGGAGCGGCTGCAAGAGGTAATGAGAGATGCGCAAGAAAGAAGCTGAAA  
AAATTTACTACTTTGGAGATTGTGCTCAGTGTCTCTTGCTGTGTGTGTTATCATCAGTATTGTTCTAATTGTC  
CTTTTAGCCCAAGAGTCTACTGAAATCAACAGCCCGAGATCCTGGGACAACCTGGTACCCTGGATCCTGGGACAAC  
GGTACCCAGATCCTGGGAACAACCTGGTACCACACATGCTAGGACAACGGGTCCCCAGATCCTGGGAACAACCTG  
ACCACTCCTGTTTCTGCTGAATGTCCAGTGGTAAATGAAITGGAACGAATTAATGTCATCCCTGACCAGCCGCCA  
ACAAAGGCCACATGTGACCAACCTGGCTGTTGCTGGAATCCCCAGGGAGCTGAAGTGTTCCTGGTGCTACTAT  
TCCAAGAATCATATGACTGACATGTAGAGGGCAACCTTGTCAACACAATGCGAGGATTCACAGCCGGTGTGAAAAAT  
CTGCCCTCCTCACCAGTGTTTGAAGCAATGTTGACAATGTTCTTCTCACAGCAGAATATCAGACATCTAATCTGT  
TTCCACTTTAAGTTGACTGACCAAAACCAATAACAGGTTTGAAGTGCCCCACGAAACAGTGCAGTCTCTTCAGTGA  
AATGCTGCTGCTTCTTTGACCTACCAAGTTGAAATCTCCAGACAGCCATTAGCATCAAAAGTACCAGAAGAAGC  
AACAACTCGTGTGTTTGTGACTCGAGCATTGGGCCCTACTGTTTGTGACCAAGTCTTGCAGCTCTCCACTCGA  
CTGCCCTAGCACTAACGTGTATGGCTGGGAGAGCATGTGCACCAGCAGTATCGGCATGATATGAATGGAAGACC  
TGGCCCATATTTAAACAGAGACACAACCTCCAATGGAAACGGAACATAATTTGTGTGGCAGACATCTCTTTG  
TGCTTGAAGATGCTAGTGGATTGTCTCTTGGGGTGTCTTGATGAACAGCAATGCCATGGAGGTTGCTCCTCAG  
CCTGCGCCAGCCATCACTTACCGCACTATTGGGGCATTCTGCACTCTATGTGTTCTTGGGAAACACTCACAG  
CAAGTTGTTCAAGAATATCTAGAGCATCTTGGCGGCCAGCCCTTCCCTCCTACTGGCGCTTGGATTTCACCTC  
AGTCGTTACGAATATGGAACCTTAGACAACATGAGGGGAAGTCGTGGAGAGAATCGCGCAGCAGCAGCTCCCTTAT  
GATGTTCCAGCATGCTGATATTGATTATATGATGAGAGAGGGAACCTTCACTTATGATTCAGTGGATTTTAAAGGC  
TTCCCTGAAATTTGTCAACGAGTTACACAATAATGGACAGAAGCTTGTCACTATTGTGGATCCAGCCATCTCCAC  
AACTCTTCCCTCAAGTAACCCATATGGCCCATATGACAGGGGTTCCGATATGAAGATATGGGTGAATAGTTAGAT  
GGAGTGACTCCACTCAATTTGGGGAGGCTTGGCCTGGACAACCTGTGTTTCCGATTATCAACATCCCAACTGTGCT  
GTTTGGTGGACAAGGAATTTGAGCTTTTTCACAATCAAGTAGAGTTGATGGAATCTGGATTGATATGAATGAA  
GTCTCAACTTTTGTGATGTTGCTGCTCAGGATGTTCCACAACAACCTAAATAATCCCCCTTCACTCCCGAGA  
ATCCCTGATGGGTACCTGTCTCTCAAGACTCTCTGTATGGATGCGAGTGCAGCAGTGGGGCAAGCATATGACATT  
CACAACTCTGATGGCTACTCCATGGCGGTGCCACAGCAGAAGCTGCCAAGACTGTGTTCCCTAATAAGAGAACC  
TTCATTCTGACCCGTTCTACCTTTGCGGGCTCTGGCAAGTTTGCAGCACAATGTTTAGGAGACAACACTGCCACC  
TGGGATGACCTGAGATGGTCCATCCCTGGCGTGCTTGAGTTCAACCTTTTGGCATCCCAATGGTGGGCTCTGAC  
ATATGTGGCTTTGCTTTGGACACCCCTGAGGAGCTCTGTAGGCGGTGGATGCAATTTGTTGCTATTTATCCGTTT  
TCTAGAAATCAAAATGGCCAAGGCTACAAGGACCAGGATCCTGCCCTCTTGGAGCTGACTCCCTGCTGTGTAAT  
TCTCTCAGGCACTACCTTAACATCCGTATACCTTATTTGCCCTACCTATACACCCCTTTTCTCCGTGCTCACAGC  
CGAGGGGACACGGTGGCCAGGCCCTTTTGCATGAGTTCTACGAGGACAACAGCATTGGGATGTGCACAAACAG  
TCTTATTTGGGGGCCCGGCTCCTCATCACTCCAGTTCTGGATGAAGGTGCAGAGAAGGCATGGCATATGTGCTCT  
GATGCTGTCTGGTATGACTACGAGACTGGGAGCCAAAGTGAGATGGAGGAAGCAAAAGCTCGAGATGGAATCTCT  
GGAGACAATAATGTGACTTCACTCTCGAGGAGGCTACATCTTCCCCACAGCAGCAAAATACAACCACTTGGCC  
AGTCGAAAGAACCCCTTTGGTCTTATCATTTGCCCTAGATGAGAACAAGAAAGGAGGAACCTTTCTGGGAT  
GATGGGGAAACGAAGGATACTGTGGCCAAATAAGTGATCTTTTATGTGAGTTTCTGTCACTCAAAACCCGCTG  
GAGGTGAATATTTCACAATCAACCTACAAGGACCCCAATAATTTAGCATTTAATGAGATTAATTTCTTGGGAGC  
GAGGAACCTAGCAATGTTACAGTGAAACAACATGGTGTCCCAAGTCAGACTCTCTCTACAGTCACTTATGATTCT  
AACCTGAAGGTTGGCATTATACAGCAATTTGATCTTCTCTGGGAGAAGCATACAGTGGAAATGGAGACATAAG  
ATAAGGGATGAAGAAAAATAGACTGTACCCTGATGAGAATGGTGCTTCTGCCGAAACCTGCACTGGCCGTGGC  
TGATCTGGGAGGCATCCAATTTCTTCTGGAGTCCCTTTTGTCTATTTTGTCAACGACCTATACCTCTGTGAGTAT  
GTTGAGTATATAATTTCCATGGGGGACAGCTGACATCTCCTTAAAGTCTTCCGTTTATGCCAATGGCTTCCCTCC  
ACACCCGTAAACCCCTTCGCTGGATGTCACTTACCATGAAGATGAAATGCGCGGATCTCAAGATTATGATGCC  
AACAGAATACCGTATGAAGTTCCAGTCCCTCTGAACATACCCAGCATGCCATCCAGCACCCCTGAGGCTCACTC  
TATGATGTGCTCATTAAGAAGAATCCATTTTGGGATTGAAATTCGCGGAAGAGTATAGGCATATAATTTGGGAC  
TCTCAGCTCTTGGCTTTTACCTCTCAGTGACATGTTTATCCGATCTTCCACCGCCTTCCCTCAAGTACCCTCTAT  
GGCTTGGGGAAACTGAGCACAGGTCTTATAGGAGAGACTTGAAGTGGCACACTTGGGGGATGTTCTCCCGAGAC  
CAGCCCCAGGGGTACAAGAAGAAATTCCTATGTGTCCACCCCTACTACATGGGGCTGGAGGAGGACGGCAGTCC

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FIGURE 496B

CATGGAGTGCTCTGCTGAACAGCAATGCCATGGATGTGACGTTCCAGCCCCGCTGCCTTGACATACCGCAC  
ACAGGGGGAGTTCTGGACTTTTATGTGTTCTTGGGGCCGACTCCAGAGCTTGTCAACCAGCAGTACACTGAGTTG  
ATTGGCCGCGCTGTGATGGTACCTTACTGGTCTTTGGGGTTCCAGCTGTGTGCGCTATGGCTACCAGAATGACTCT  
GAGATCGCCAGCTTGTATGATGAGATGGTGGCTGCCAGATCCCTTATGATGTGCAGTACTCAGACATCGACTAC  
ATGGAGCGGCAGCTGGACTTCACCCTCAGCCCCAAGTTTGCTGGGTTTCCAGCTCTGATCAATCGCATGAAGGCT  
GATGGGATCGGGGTATCCTCATTCTGGATCCAGCCATTCTGGCAATGAGACACAGCCTTATCCTGCGCTTCACT  
CGGGCGCTGGAGGATGACGCTTTCATCAATACCCAAATGATGGAGACATTGTCTGGGAAAGGCTTGCCCTGAT  
TTTCTGATGTTGTTGTAATGGTCTCTAGACTGGGACAGCCAAGTGGAGCTATATCGAGCTTATGTGGCCTTC  
CCAGACTTTTTCCGTAATTTCAACTGCCAAGTGGTGAAGAGGGAATAGAAGAACTATACAACAATCCACAGAAT  
CCAGAGAGGAGTTGAACTTTGATGGCATGTGGATTGATATGAATGAACCATCAAGCTTCGTGAATGGGGCAGTT  
TCTCCAGGCTGACGGGACGCTCTCTGAACCACCCTCCCTACATGCCACATTGGAGTCCAGGGACAGGGGCGCT  
AGCAGCAAGACCCTTTGATGAGAGTGCAGAGATCTCCAGACGGCTCCCTGGTGCAGCACTACAACGTCAC  
AACCTGTATGGGTGGTCCGACACGACCCACATACGAAGCCGTGCAGGAGGTGACGGGACAGCGAGGGTTCGTC  
ATCACCCGCTCCACATTTCCCTTCTTGGCCGCTGGGCAGGACATTGGCTGGGAGACAACACGGCCGCATGGGAT  
CAGCTGAAGAAGTCTATCATTGGCATGACGGAGTTACGCCCTCTTCGGCATATCCTATACGGGAGCAGATATCTGT  
GGGTTCTTTCAAGATGCTGAATATGAGATGTGTGTTTCGCTGGATGCAGCTGGGGGCTTTTACCCTTCTCAAGA  
AACCACACACCAATTGGGACCAAGAGACAAGACCCTGTGTCTGGGATGTTGCTTTGTGAATATTTCCAGAACT  
GTCTCGACAGCAGATGACACCTGTTGCCATATCTGTATACCTTGATGCATAAGGCCACACGGAGGGCGTCACT  
GTTGTGCGGCCCTCTGCTCCATGAATTTGTGTCAGACCAGGTGACATGGGACATAGACAGTCAGTTCTGCTGGGC  
CCAGCCTTCTCGGTGAGCCCTGTCTCGGAGCGTAATGCCAGAAATGTCACTGCATATTTCCCTAGAGCCCGCTGG  
TATGATTACTACACGGGTGTGGATATTAATGCAAGAGGAGAGTGGAAAGCCTTGGCGGCCCTCTTGACCACT  
AATCTTCATGTCCTGGGGGCTACATCCTGCCCTGGCAAGAGCCTGCATGAACACCCACTTAAGCCGCCAGAAA  
TTCATGGGCTTCAAAATTTGCCCTGGATGATGAAGGAAGTGTGGGGGCTGGCTCTTCTGGGATGATGGGCAAAGC  
ATTGATACCTATGGGAAAGGACTTATTACTTGGCCAGCTTTTCTGCCAGCCAGAATACGATGCAAGGCCATATA  
ATTTTCACAATATACATCACTGGTACAAATCCTTTGAAACTGGGCTACATGAAATCTGGGGAGTGGGCAGTGTC  
CCCCGTACCAGTGCCAGCATCTCTGTGAGTGGCATGGTCATAACACCCCTCTTCAACAATGACCCACGACACAG  
GTATTAAGCATCGATGTGACTGACAGCAAAATCAGCCTACATAATTTTACTTTCATTGACGTGGATAAGCACTCTG  
**TGA**ATTTTACAGCAAGATCTTAATACTATGAATGACTTTGAACTACTTATACCTTCATATCATAAAAATTA  
TTGTGTGTGTGCTAATTTGTTTCATACCCCACTATTGGTGAATATTTCTGTTAATTTTGTATATGTTTTTGTGTG  
AACCTTAAAGGTTAAACCTTAGCCCTGTGGGATAGGCAGTTAGGGAGGTGTGGAAAACTATGCATTACCTTAA  
GTCTCTGTGTGGTTAGTATGGTAGTGACTGTCATCATATGACATTTACTGAAGATGAAGTGGGTCATGATGAA  
GTGTGTGATGTCCAGCTTTGTAATCATAGAATGGACCCCTTCTTTTGTAAATACACAAGAGAAAGCTTTCTG  
TGACAGTTCAGGCTCTGAAGCTAATCAGCATCTCAAGAAAGTATCCAGAAAGACATCTGCTAGTTGGTTATAG  
GCGGTGGGAGGAATAATATACCTTATTTGGTTATAGGTGGGGGAGCATGATAAGCAAGAAAGGCAACACAAG  
GAAAGTCAGATGAACAGAAGATGATAGTAAAAGTGATCCTAAGTAAGAACATATGTGAAATTTGTAGCAGCC  
TCATGGGGAGGAAAAAGGAAGTCAACTCACTTGAAGAAGAGGGTCTTGAGAAATCCTTAGCATAAAGGGCTAC  
TGGTGAGATTGAGATCTGAGCAGGCAAGGCTCAAAAGAGAGTTTGGAGGTTAAAAATAATTTATTTTTCAGTAG  
TGTGCTTGAATGTGTAATCTTATTTCTAATGTATAACAACCACATTTTCATATAAAAAATGCAATTTATATGC  
CAGATAAAAAATAAACAGTGAATTTGCAAGTGAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 497**

MARKKKLKFTITLEIVLSVLLLVLF IISIVLIVLLAKESLKSTAPDPGTTGTGPDGTTGTGTPDGTGTTGTHARTGP  
PDPGTTGTGTPVSAECPVNVNELERINCPDQPPTKATCDQRGCCWNPPQGAVSVPWCYYSKNHSYHVEGNLVNTNAG  
FTARLKNLPPSSPVFGSNVDNVLTTAEYQTSNRHFHKLTDQTNNRFEVPEHVVQSFSGNAAASLTQVEISRQPF  
IKVTRRSNNRVLFDSSIGPLLFADQFLQLSTRLPSTNVYGLGEHVHQYRHDMMNWKTPIFNRDITPNGNGTINLY  
GAQTFFLCLEDASGLSFGVFLMNSNAMEVVLQAPAPAITYRTIGGILDFYVFLGNTPEQVQVQEYLELIGRPALPSY  
WALGFHLSRYEYGTLDNMREVVERNAAQLPYDVQHADIDYMDERRDFTYDSVDFKGFPEFVNELHNNQKLVII  
VDPAPISNNSSSSKPYGPYDRGSDMKIWNSSDGVTPLIGEVWPGQTVFPDYTNPCAVVWTKFELFHNQVEFDG  
IWDIMNEVSNFVDGVSVCSTNNLNPNPPTPRILDGYLFCCKTLCMDAVQHWGKQYDIHNLYGYSMAVATAEAAKT  
VFPNKRSLILTRSTFAGSGKFAAHLWGDNTATWDDLWSIPGVLEFNLFPGIMPVGPDICGFALDTPEELCRRMWQ  
LGAFYFPFSRNHNGQYKQDQDPASFGADSLLNSSRHYLNIRYTLPLPYLYTLFFRAHSRGDTVARPLLHEFYEDNS  
TWDVHQQLWGPGLLITPVLDEGAEKAMAYVPDAVWYDYETGSQVRWRKQKQVEMELPGDKIGLHLRGGYIIFTQQ  
PNTTTLASRKNPLGLIIALDENKEAKGELFWDDGETKDTVANKVYLLCEFSVTQNRLEVNISQSTYKDPNNLAFN  
EIKILGTEEPSNVTVKHNGVPSQTSPTVYDSNLKVAIITDIDLLGEAYTVEWSIKIRDEEKIDCYPDENGASA  
ENCTARGCIWEASNSSGVFPFCYFVNDLYSVSDVQYNHSGATADISLKSSVYANAFSTPVPNLRDLVITYHKNEP  
QFKIYDPNKNRYEVPVPLNIP SMP SSTPEGQLYDVL IKKNPFGIEIRRKSIGITI IWDSQLLGFTFSDMFIRISTR  
LPSKYLYGFGETEHRSYRRDLEWHTWGMFSRDQPPGYKKNSYGVHPYYMGLEEDGSAHGVLNNSNAMDVTFQPL  
PALTYRTTGGVLDYFVFLGPTPELVLTQYQYTELIGRPVMVPYWSLGFQLCRYGYQNDSEIASLYDEMVAQIPYDV  
QYSDIDYMERQLDFTLSPKFGAFPALINRMKADGMRVILILDPAISGNETQPYPAFTRGVEDDVFIKYPNDGDIV  
WGKVPWDFPDVVVNGSLDWDSDQVELYRAYVAFPDFFRNSTAKWWKREIEELYNPNQNPERSLKFDGMWIDMNEPS  
SFVNGAVSPGCRDASLNHPYPMHLESRDRLSSKTLCMESQQILPDGSLVQHYNVNHNLYGWSQTRTPYEAQVEV  
TGQRGVVITRSTFPSSGRWAGHWLGDNTAAWDQLKKSIIGMTESFLGISYTGADICGFFQDAEYEMCVRWMQLG  
AFYPFSRNHNTIGTRRQDPVSWDVAFVNISRTVLQTRCTLLPYLYTLMHKAHTEGVTVVRPLLHEFVSDQVTWDI  
DSQFLLGPAFLVSPVLERNARNVTAYFPRARWYDYTTGVDINARGEWKTLPAPLDHINLHVRRGGYILPWQEPALN  
THLSRQFMGFKIALDDDEGTAGGWLFWDDQCSIDTYGKGLYYLASFSASQNTMQSHIIFNNYITGTNPLKLGYYIE  
IWGVGSVPVISASISVSGMVIIP SFNNDDPTTQVLSIDVTDNRNISLHNFTSLTWISTL



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**FIGURE 498**

CGATCTGCCGGAGCCCGCCGCCGGCTTGGATTCTGAAACCTTCCTTGTATCCCTCCTGAGACATCTTTGC  
TGCAAGATCGAGGCTGTCTCTTGGTGAAGTGGTGAGGCTTCCCGTCATATTCCAGCTCTGAACAGCAACATG

GGGTGCAAAGTCTCTGCTCAACATTGGCGAGCAGATGCTGCGCGGGAAGGTGGTGGACTGTAGCCGGGAGGAGACG  
CGGCTGTCTCGCTGCCTGAACACCTTTTGATCTGGTGGCCCTCGGGGTGGGCAGCACACTGGGTGCTGGTGTCTAC  
GTCTCTGGCTGGAGCTGTGGCCCGTGAGAATGCAGGCCCTGCCATTGTATCTCCTTCTGATCGCTGCGCTGGCC  
TCAGTGCTGGCTGGCCTGTGCTATGGCAGTTTGGTGCTCGGGTCCCAAGACGGGCTCAGCTTACCTCTACAGC  
TATGTACCGTGTGGAGAGCTCTGGGCCCTTATCACCGGCTGGAACCTAATCTCTCTACATCATCGGTACTTCA  
AGCGTAGCGAGGGCCCTGGAGCGCCACCTTCGACGAGCTGATAGGCAGACCCATCGGGGAGTTCTCACGGACACAC  
ATGACTCTGAACGCCCGCCGCTGTGGCTGAAAACCCGACATATTGCGAGTGATCATAATTCTCATCTTGACA  
GGACTTTTAACCTCTTGGTGTGAAGAGTCGGCCATGGTCAACAAAATATTCACTTGTATTAACGCTCTGGTCTCTG  
GGCTTCATAATGGTGTGAGGATTTGTGAAGGATCGGTTAAAACTGGCAGCTCACGGAGGAGGATTTTGGGAAC  
ACATCAGGCCGCTCTGTGTTGAACAATGACACAAAAGAAGGGAAGCCGGTGTTGGTGGATTATGCCCTTCGGG  
TTCTCTGGTGTCTGTGCGGGGACGCGACTTGCTTCTATGCCITCGTGGGCTTTGACTGCATGCCACCACAGGT  
GAAGAGGTGAAGAACCCACAGAAGGCCATCCCCGTGGGGATCGTGGCGTCCCTCTTGATCTGCTTCAATCGCCTAC  
TTTGGGTGTGCGCTGCCCTCACGCTCATGATGCCCTACTTCTGCCTGGACAATAACAGCCCCCTGCCCGACGCC  
TTTAAGCACGTGGGCTGGGAAGGTGCCAAGTACGCAGTGGCCGTGGGCTCCCTCTGCGCTCTTCGCCCAGTCTT  
CTAGGTTCCATGTTTCCCATGCCTCGGGITATCTATGCCATGGCTGAGGATGGACTGCTATTTAAATCTTAGCC  
AACGTCAATGATAGGACCAAAACACCAATAATGCCACATTAGCCTCGGGTGCCGTTGCTGCTGTATGGCCTTC  
CTCTTTGACCTGAAGGACTTGGTGGACCTCATGTCCATTGGCAGCTCTCTGGCTTACTCGTTGGTGGCTGCCTGT  
GTGTTGGTCTTACGGTACCAGCCAGAGCAGCCTAACCCTGGTATACAGGATGGCCAGTACTTCCGACGAGTTAGAT  
CCAGCAGACCAAAATGAATTGGCAAGCACCATGATTCCAGCTGGGGTTTTTACCAGAGGCAGAGATGTTCTCT  
TTGAAAACCATACTCTACCCAAAAACATGGAGCCTTCCAAAATCTCTGGGCTAATTGTGAACATTTCAACCAGC  
CTTATAGCTGTTCTCATCATCACCTTCTGCATTGTGACCGTGCTTGGAAGGGAGGCTCTACCAAAGGGGCGCTG  
TGGGCGAGTCTTCTGCTCGCAGGCTCTGCCCTCCTCTGTGCCGTGGTCAACGGGCTCATCTGGAGGCAGCCGAG  
AGCAAGACCAAGCTCTCATTTAAGGTTCCCTTCCTGCCAGTGCTCCCCATCCTGAGCATCTTCGTGAACGCTCAT  
CTCATGATGCAGCTGGACAGGGGCACTGGGTCCGGTTTGCTGTGTGGATGCTGATAGGCTTCATCATCTACTTT  
GGCTATGGCTGTGGCACAGCAGGAGGCGTCCCTGGATGCCGACCAAGCAAGGACTCCTGACGGCAACTTGGAC  
CAGTGCAAGTGACGCACAGCCCCGCCCGGAGGTGGCAGCAGCCCCGAGGGACGCCCCAGAGGACCGGGAGG  
ACCCCAACCTTCCCAACAGTGAACAGAAACCACTGCGTCCACACCTCTACTGCA

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**FIGURE 499**

MGCKVLLNIGQQMLRRKVVDSCREETRLSRCLNTFDLVALGVGSTLGAGVYVLAVAGAVARENAGPAIVISFLIAAL  
ASVLAGLCYGEFGARVPKTSAYLYSYVTGELWAFITGWNILISYIIIGTSSVARAWSATFDELIGRPIGEFSRT  
HMTLNAPGVLAENPDIFAVIIILILTGLTLGVKESAMVNKIFTCINVLVLGFI MVSGFVKGSVKNNWQLTEEDFG  
NTSGRLCLNNDTKEGKPGVGGMFPGFSGVLSGAATCFYAFVGFDCIATTGEEVKNPQKAIPVGIVASLLICFIA  
YFGVSAALTLMMPYFCLDNNSPLPDAFKHVGWEGAKYAVAVGSLCALSASLLGSMFPMPRVIYAMAEDGLLFKFL  
ANVNDRTKTIPIATLASGAVAAMAF LFDLKDLDVLM SIGTLLAYSLVAACVLVLRYPQEPQPNLVYQMASTSDEL  
DPADQNELASTNDSQLGFLEAEMFSLKTIILSPKNMEPSKISGLIVNISTSLIAVLIITFCIVTVLGREALTGA  
LWAVFLLAGSALLCAVVTGVIWRQPESKTKLSFKVPFLPVLPLISIFVNVYLMMLDQGTWVRFAVWMLIGFIY  
FGYGLWHSEASLDADQARTPDGNLDQCK

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**FIGURE 500**

GTTTTCAGGCTCTTGGCGGTGAAGGTCAGAGTGCAGACCTGAGACCACTGCTCACCAGACTTCAGACTCCAGTTTAA  
TCTGTGCCCCAGCTTCTCTCACTTAGTCTCAGAAGACTTAGGCTGAGGCCTCAGAAGGAGATCTCCATCCTTTGTC  
CAGAGCAGAACAGGATGCCCATGTCGCCAGGAATCATTGACCTTCAAGGACGTGTTTGTGGACTTCACCTGGAGG  
AGTGGCAGCAACTGGACTCTGCCCAGAAGAACTCTACAGGGATGTCACTGCTTGAGAACTACAGCCACTGGTGT  
CCGTGGGGTATCTAGTTGCGAAGCCTGATGTGATCTTCAGGTTGGGACCAGGTGGAGAGTCTCTGGATGGCAGATG  
GGGGGACCCCGGTACGGACCTGTGCAGAACTGTGGCAAGTTGATGAGCAGATAGATCACTACAAGGAAAGCCAAG  
ACAAACTTCCCTTGGCAAGCTGCATTCATAGGCAAGGAAACACTGAAGGATGAAAGCGGTCAAGAATCCAGAACAT  
GTAGAAAAAGCATTTATCTGAGCAGAGAATTTGATTCTGTAAGGCAAGACTCCCTAAATATTATTCGTGGGAAA  
AGGCATTCAAAACATCATTAAACTTTCTTGGTCAAAATGGAAGCTATGTAAAGAAAGAAAGATGATGGATGTAAA  
GCATATTGAAAGTATGCTTCCATTATAATCTTCATAAAGCTCAACCTGCAGAGAGATTTTTTGACCTTAATCAA  
CGAGGAAAGCCCTCCACCAAAGCAAGCCCTTAGAAAAAGTCAGAGAAGTCAAAGTGGGAGAGAACTCTACAAA  
TGTACTGAATGTGAAAAAGTGTATATCCAGAAAGCAACTTAGTTGTACATCAAAGAACTCACACCGAGAGAAA  
CCTTATGAATGCTGCGAATGTGCAAAAGCCTTCAGCCAGAAGTCAACCTCATAGCACACCAGAGAACTCACACA  
GGGGAGAAAGCCCTATGAATGCAGTGAATGTGGAAAAACCTTTATCCAGAAGTCAACTCTGATTAAACATAAGAAA  
ATTCATATGGAGAGAGACCCTATAAATGCAGTGTCTGTGAGAAAGCCTTCAGTAGGAAGTCAACTCTCATTAAAC  
ATCAGATAAATTCATATGGGAGAAACCTTATGAATGTAATAAATGTGGGAAATCTTTTAGTGTAAATCAACTCTC  
ATTGTATGTACAGAACATAAATGCATAAGTTGCATGCTATTGTGAATAGTGTGATGAAATTTTGCACTGTCTGT  
CTCTTTCCCTGCTCAGGATGCAAAATCAGTGAATCTTTTTTTTTTTTTTTTTTGGAGACAGAGCTTGCTCTGTCT  
CCAAACTGGAGTGCAGTGGCAACAATCTTGGCTCACTGCAACCTCCGCCTCTTGGGTCAACCGATTCTCCTGCCT  
CAACCTCCCAATAGTTGGGATTACAGGCACATGCCACCATACGCAGCTAATTTGTATTTTTAGTAGAGACAGGG  
TTTCACCATGTTGGCCAGCCTGGTCTTGAACCTCCTGACCTCAAGTGATCCGCCTGCCTCAGCCTCCCAAAGTGCT  
GGGATTACAGGCATGAGCCACTGCACCCGGCTTGAATCATCCTTTTGTCCGATTATATCCATGCTGTATATGC  
TACCCGCCCCTAGTCCCTTAGCTGTCTCAGTTGTCAGATTGACTGTCTGGGATTCAGTGCTTGCATTAAAGC  
TACCTTATTGTATAATGACCCCAAAGTGCAAGAGTAGTGATGTTGGCAATTTGCATACACCAAAAAATAGTTAT  
AAAGTGCTTCCCTAAAGTGAAATGGTTAAAGTTCTTGACTTAATAAAGAAAAAAATGTATGCTGAGGTTGTTAA  
GATTTACAGTAAGAATGAATCTTCTATCCAGAAATGTGAAGGAGGAAAAAGAACTTGTGCTAGTTTGTGCTGTC  
ACATCTGAAACTGCAAAAGTTGTGGCCACAGTGCAATCATAAGTGCTAAGACGAAAAAGACATTAATTTGCGGAT  
GGAAGGCGTGAATAGAAATGGGTTCTGCAGCAATCAGGTTCCGTACTATTACAGTTTCAGGCATCCGCTAGGG  
ATCTTGGAAACATATCCCCATGGATAAGGGAGGGGACTGTACCTTGTCAATTTGTGCATTAAAGAAATTCATTGA  
GTGTAATCATGTAAGTCTAACACACATTTAAAAAGCTCTCAGATATCATTTCCGCTTCGGTTGATGTAAGAAAA  
TCAAAGCTACTCAATCATTAATAATGATAAAATTTATTTAAAAAAGAAAAA

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**FIGURE 501**

MAMSQESLTFKDVFDFTLEEWQQLDSAQKNLYRDVMLENYSHLVSVGYLVAKPDVIFRLGPGGESWMADGGTPV  
RTCAEVWQVDEQIDHYKESQDKLPWQAAFIGKETLKDESGQESRTCRKSIYLSTEFDSVRQRLPKYYSWEKAFKT  
SFKLSWSKWLCKKER

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**FIGURE 502**

AACACATTTTCATCTGGGCTTCTTAAATCTAAATCTTTAAATGACTAAGTTTTCTTCTTTTCTCTGTTTTTCCT  
AATAGTTGGGGCTTATATGACTCATGTGTGTTTCAATATGGAAATTATTGGAGGGAAAGAAGTGTACCTCATT  
CAGGCCATTTATGGCCTCCATCCAGTATGGCGGACATCACGTTTGTGGAGGTGTTCTGATTGATCCACAGTGGGT  
GCTGACAGCAGCCCACTGCCAATATCGGTTTACCAAAGGCCAGTCTCCCACTGTGGTTTTAGGCGCACACTCTCT  
CTCAAAGAATGAGGCCTCCAAACAAACACTGGAGATCAAAAAATTTATACCATTTCAAGAGTTACATCAGATCC  
TCAATCAAAATGATATCATGCTGGTTAAGCTTCAAACAGCCGCAAACTCAATAAACATGTCAAGATGCTCCACAT  
AAGATCCAAAACCTCTCTTAGATCTGGAACCAAATGCAAGGTTACTGGCTGGGGAGCCACCGATCCAGATTCATT  
AAGACCTTCTGACACCCCTGCGAGAAGTCACTGTTACTGTCTTAAGTCGAAAACCTTGCAACAGCCAAAGTTACTA  
CAACGGCGACCCTTTTATCACCAAAGACATGGTCTGTGCAGGAGATGCCAAAGGCCAGAAGGATTCCTGTAAGGG  
TGACTCAGGGGGCCCTTGATCTGTAAGGTGTCTTCCACGTATAGTCTCTGGAGGTGATGAATGTGGTGTTC  
CACAAAGCCTGGAATCTACACCTGTTAACCAAGAAATACCAGACTTGGATCAAAGCAACCTTGTCCTCCGCTCA  
TACAAATTAAGTTACAAATAATTTTATGGATGCACCTTGCTTCTTTTTTCTTAATATGCTCGCAGGTTAGAGTTG  
GGTGTAAGTAAAGCAGAGCACATATGGGGTCCATTTTGCACCTGTAAGTCATTTTATTAAGGAATCAAGTTCTT  
TTTCACTTGATCACTGATGTATTTCTACCATGCTGGTTTTATTCTAAATAAAATTTAGAAGCT

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**FIGURE 503**

MTKFSSFSLFFLIYGAYMTHVCFNMEIIGGKEVSPHSRPFMASIQYGGHHVCGGVLIDPQWVLTAHCQYRFTKG  
QSPITVVLGAHSLSKNEASKQLEIKKFIPFSRVTSDPQSNIDIMLVKLQTAAKLNKHVKMLHIRSKTSLRSGTKCK  
VTGWGATDPDSLRLPSDTLREVTVTVLSRKLCNSQSYYNQDFFITKDMVCAGDAKGQKDSCKGDSGGPLICKGVFH  
AIVSGGHECGVATKPGIYTLLTKKYQTWIKSNLVPPHTN

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**FIGURE 504**

GGACAGCACAGCTGACAGCGGTGCTCAGAAAGTTTCTGGATCCAGGCTCATCTCCACAGAGGAGAACACGCGAGG  
CAGCAGAGACCA**ATG**GGGGCCCATCTCAGCCCTTCTCTGCAGATGGCGCATCCCTGGCAGGGGCTCTCTGCTCACAG  
CCTCACTTTTCACTTCTGGAACCCGCCACCACTGCTCAGCTCATAATTGAAGCTGTGCCATCCAATGCTGCAG  
AGGGGAAGGAGGTTCTTCTACTTGTCCACAATCTGCCCCAGGACCTCTGTGGCTACAACTGGTACAAAGGGGAAA  
CAGTGGATGCCAACCGTCGAATTATAGGATATGTAATATCAAATCAACAGATTACCCAGGGGCTGCATACAGCA  
ATCGAGAGACAATATACCCCAATGCATCCCTGCTGATGCGGAACGTCACCAGAAATGACACAGGATCTTACACCC  
TACAAGTCATAAAGCTAAATCTTATGAGTGAAGAAGTAACGTGCCAGTTCAAGCTACATCCGGAGACTCCCAAGC  
CCTCCATCTCCAGCAACAACCTCCAACCCCGTGGAGGACAAGGATGCTGTGGCCTTCACTGTGAACCTGAGACTC  
AGAACAACAACCTACCTGTGGTGGGTAATGGTCAGAGTCTCCCGGTGAGTCCAGGCTGCAGCTGTCCAATGGCA  
ACAGGACCCCTCACTCTACTCAGTGTCAACAAGGAATGACGTAGGACCTATGAATGTGAAATACAGAACCAGCGGA  
GTGCAAACTTCAGTGACCCAGTACCTGAATGTCTCTATGGCCAGATGCCCCACCATTTCCCTTCAGACA  
CCTATTACCATGCGAGGGTAAATCTCAACCTCTCTGCCATGCGGCTCTAATCCACCCTCACAGTATTCTTGGT  
CTGTCAATGGCACATTCCAGCAATACACACAAAAGCTCTTTATCCCCAACATCACTACAAAGAACAGCGGATCCT  
ATGCCTGCCACCACTAACTCAGCCACTGGCCGCAACAGGACCACAGTCAGGATGATCACAGTCTCTGATGCTG  
TAGTACAAGGAAGTTCTCTGGCCTCTCAGCTAGAGCCACTGTCAAGTATCATGATTGGAGTACTGGCCAGGGTGG  
CTCTGATAT**TAG**TAGTCTGTGTAGTTTCTGCATTTCAGAAGACTGGCAGACAGTTGTTTTATTCTTCTCTCAA  
AGCATTTGCAATCAGCTACCAATCAAATTTGCTTCTTCTCAAGATTATGGAATAACTCTGACGAGTACTCTT  
GAACACAAGTTCTTGATAACTTTAAGATCAGGCCACTGGACTGTCTATGAACCTTGCAAAACAGGCTGATACCTTTG  
TGAAGTTGCCCAACAAAACACAGAAGGAAAAAACATGAATTTCAATTGAACATAAATAATGAGGATAATGTTT  
TTAAGATTTTTTTTTTTTTTTTTTTTGGAGATGGAATCTCGCTCTGTCGCCCAGGCTGGAGTGCAGTGGCAGCATC  
TCAACTCACTGCAACGTCGCGCTCTGGGTTCAACCATTTCTCTGCTCAGCCTCCTGAGTAGCTGGGACTACA  
GGCGCTGCCACAACGCCCGGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTCACTGTGGTCTCAATCTCTCT  
GACTTCATGGTCCGCCTGCCTCAGCCTCCCAAAGTTCTGGGATTACAGGTGTGAGCCACCGGCCAGCCGCTTT  
TTAAGATTTTTATTGAAAAATGCCAATTTCTTAAGTGTTTCTTTTTCAGATTATGAATTTCTTTATCTTT  
TAAGCTATCTATACCTTACTGCAATTTGGTAAAGCAGACTTTTGTGAACAAAAATATAACATTTACTTTTGCTC  
CCTACCTGACTGCCACAGAAGTGGGCAACTATTCATGAGTATTCATATGTTTATGGTAATTCAGTTATTTGACACA  
AGTTCACTGAGAATCTGCTGCTTTATAATGGGATATAGTTTAAACATTGGTTATATACCAAGGCTTTGATTG  
GGATGTTATATTGAGAAAAACAGAGAATGATAGATTAACGGAGTGTCTAATCTATCGTGTCAACCCCAAAATTT  
TTAGCTATGAGATCCTTTAGTCCACCCTAATGGCTGACAGTAACAGCATCTTTAACACAACCTCTTTGTTCAAATGT  
ACTATGGTCTCTTTTAGAGTCAGACTCCTAGACTCACTGTGTTCTCACTGTCTGTTTAAATTTAACCCAGGCATGC  
AATGCTAGATAATAAATTTGCTCCCTATTGGCTGATC

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**FIGURE 505**

MGPISAPSCRWRIPWQGLLLTASLFTFWNPPTTAQLTIEAVPSNAAEGKEVLLL VHNL PQDPRGYNWYKGETVDA  
NRRIIGYVISNQIITPGPAYSNRETIYPNASLLMRNVTRNDTGSYTLQVIKLNLMSEEVTGQFSVHPETPKPSIS  
SNNSNPVEDKDAVAFTCEPETQNTTYLWWVNGQSLPVSPRLQLSNGNRITLTL SVTRNDVGPYECEIQNPASANF  
SDPVT LNVLYGPDAPTISP SDTYHAGVNLNLSCHAASNPPSQYSWSVNGTFQQYTQKLFIPNITTKNSGSYACH  
TTNSATGRNRTTVRMITVSDAVVQGSSPGLSARATVSIMIGVLARVALI



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**FIGURE 506**

CGCAAGAATGCATACAACTCCAGGGCTGCTCTCTCCTGGAGAGGGAGGGAGGGGATTAAAAACCTGCAGCAAC  
ATGGGGGAGGAGGCTGTTTGTCTCTCTCTCTGGGGAAGTAACTCGCTCAAACCTGCCTTCCTTGTCTGAGTGTCT  
TCGCGTAGCTTTGAGGAAGGCTAGTGAAATTTGGCTTTCCATTACATCTGGATGTACTACCAAGAGAGTTCTGTCT  
GCTGTGTTTTTTTTAGCTTTCTTTCTTTGAGTCTTTAAAGGGCAATTGTGCACTCTGCAAAACATACCGATT  
TGTTGTCTGCCACITTTGGAGTCTTCAATCTGGGCAGTAACTATTACCCTTTTTCTGTCTAGCCTGTCCCCCTC  
TCTGGATTGAAGTCACTCTGCTAAGACAATGGACTACCGACCAGAACTCCCGGAAATCAATGTTGGTAGGATCCAGT  
CTTTTTCGCCTGGAGGGCCAAATGGGATCATTAGAAGCCAGTCTTTGCGGGTTTCAGCGGCCCTCCAGGAAGGC  
GATCCAGGTGTAATCCTTCAATTGAAAATCTCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACA  
ATTTAGGCCACAAAAACAATCTCCCCCAAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGA  
AAAATGGACTTGTGAATATCTGGAGGTTTACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGA  
AAAGAACTCTCGCCTGGGTGACTGTATGACCTAGACAAGCAAAATAAAACAATGAAAGATACATGAGACGCC  
TGGAGTTTCATATAAGTAAGTAGATGAACCTATGAAGCTTATTGTATCCAGCGCAGCCTCCAGGATGGTGCCA  
GCAAAATGAAGCAAGCCTTCGCAACATCCCCTGCCAGCAAGCTGCCCGGAGAGTCTGACAGAGATCAATCGGA  
GCTTCAAGGAGTACACAGAGAATAATGTGCACCAATTGAAGTGGAGCTAGAGAATCTGTGGGAGAATTCTCCATCA  
AGATGAAAGGTCTGGCTGGCTTTGACGCGCTCTGCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGC  
AGCGGTGGAACCTGAAAGGCAAAATAGAAGTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGC  
CCCTGATAGTTGGGTTTCATCTCCATCAAGGTCACGGAGCTCAAAGGGCTAGCAACTCACATCTGTGATGGTAGCG  
TGACCTGTGAGACCAAGAGCTGTTTGACGCCGACCTCAGGTAGTGGCTGTGCACATCAATGACCTTGGTACCA  
TCAAACCTGAACCTGGAATCACCTGGTATCCATTTGACGTGGAGGACATGACCGCATCTCAGGCGCTGGGAACA  
AGGCAGCAGCCCTTCAGAGGAGAATGTCCATGTACAGCCAGGGTACCCCGGAAACGCCACCTTCAAAGCACCCT  
CCTTCCTTTCAAATCTACCTGATGACATCTTTGAAAATGGAAGGCAGCCGAGGAGAAAATGCCACTGTCGCTCA  
GCTTCAGTGACCTGCCAACCGGGGACTGCGCCCTCACCTCCCACTCAACAGGCTCCCTTCCAACTCAACAAATC  
CAGAAATTACCATCACCCCTGCGGAGTTTAACTTCAGCAGCTTGGCCTCCAGAAATGAGGGTATGGATGACACCA  
GCTCAGCATCTTCAGGAAGTCTCCTGGGAGAAGGCCAAGAGCCAAAGTCAACCTGAAGGAGGAAGACCCAGAGG  
AGCCAGAAAACCTGCCTCGGCCCATCTGAGGCTTGCCGCCGACAGTCTCAGGTGCTGGGGCTGAGCACCTGT  
TCCTTGAGAATGATTTGTCAGAAGCACTCTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACTGS  
ACACTTCGGAAGGAACATCACAAAGCAGCTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACA  
GGCTGCTCTCTGAGGGTTCTGTTGGTGGAGAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATG  
CTTTTAATGGGCTTTTACTTGCATTAGAACCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAG  
TCATGAATTTGGATGATATTTCAAAAAAGTAGAGAAGATCCTCTAATGGATCCCAGTGTGCCCATCCCTCAACCT  
CCTCAGTATCAACTCATGGCCAACTCTGTTTCCTATTCTTCAACCTGCTGACTTCCCTCTGGATTCTCTGCAA  
CAGTCCAGATATTGTGCCATTTTATCCATGGTGTACTTCTTTTGGATATAAAGATTTTAAATGCATTTT  
TTAAATGCTAACAAAAATAAAACTTGAACAAAAA

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**FIGURE 507**

MLVGSQSFSFGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPPQAKLKKMHNLGHKNNNPPKEPQPKRVE  
EVYRALKNGLDEYLEVHQTELDKLTALQKDMKRNSRLGVLYDLQIKTIERYMRLEFHIKSVDELYEAYCIQR  
RLQDGASKMKQAFATSPASKAARESLEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI  
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD  
INDLGTIKLNLEITWYPPDVEDMTASSGAGNKAALQRRMSMYSQGTPEPTFKDHSFFSNLPDDIFENGKAAEE  
KMPLSLSFSDLPNGDCALTSHTGSPSNSTNPEITITPAEFNLSSLASQNEGMDTSSASSRNSLGEGQEPKSHL  
KEEDPEEPRKPASAPSEACRRQSSGAGAEHLFLENDVAEALLQSEEEASELKPVELDTSEGNITKQLVKRLTSAE  
VPMATDRLLSEGSVGGSEGCRCRSLDGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMNLDLILKK

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**FIGURE 508**

CGGGGGCTGGCGGCTGCGGCTCGGCGGAGAGTGCGGC**ATG**CGCTCGGAAAAAGAGGGGGCCGGAGGCCCTTCGGGC  
GGCCGTTGCCGCGCGGGGCCGAGCGGGAGGGAGAAGCTGTCCGCCCTAGAAAGTGCAGTTCCACCGGACTCGCA  
GCAGCAGGAGGCTGAGACGCGCGCAACTTCTGCTCCTCGGTTGCGGGGGCGGTGCGGGCAAACTCGCGAGGAGAA  
GAGGACGGCCCTGAGCAAGGTGGTTCATCCGCGCGCTGCTCCGGGCCCTCACCAGGAGCAGCTGGAGGAGCAGT  
GCGCCCGCTGCCAGCACAGCTACTTTCGAGTTCTTCGCGCGCGACCTGAGTCTTTATCCTCATCTCTACTCAAG  
AGCATACATTAAATTTTAGGAATCCTGATGACATCCTCTTTTAGAGATCGTTTTGATGGATATATCTTCCTTGA  
CAGCAAAAGGCTTAGAATATCCTGCAGTGGTAGAGTTTGCTCCATTCCAGAAGATAGCCAAAAGAGCTGAGAAA  
AAAAGATGCCAAGACTGGAAGCATCGAAGATGATCCAGAATATAAGAAAGTTTTAGAAACCTACTGTGTGGAGGA  
AGAGAAGACAGTGCCAACCCCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGACAAGAGAGCTCATTGCTAGAAG  
AACCACACCTCTTTTGGGAATATATTAATAATAGAAAATTAGAAAAGCAGAGAATTCGAGAAGAGAAGCGAGAAGA  
ACGGAGGAGGAGAGAGTTAGAAAAGAAACGTTTTCGGGAAGAGGAAAAAGAAAGAGAAGAGAAGAAAGATG  
CAAAAAAAGAGACAGATAAACAGAAAGAAATTGCAGAGAAAGAAGTAAGGATTAAGCTTCTTAAGAAACCCAGA  
AAAGGGAGAGGAACCAACCACAGAGAAACCAAAAGAAAGAGGAGAGGAGATTGATACTGGAGGTGGCAAGCAGGA  
ATCCTGTGCCCCCGGTGCAGTCGTAAAAGCCAGGCCCATGGAAGGCTCGCTGGAGGAGCCCCAGGAGACGTCA  
CAGCGGCAGTGATAAAGAGCACAGGATGTGGAGAGATCTCAAGAAACAAGAACTGAAGCACAAAGATACCATGT  
GGATGACGGCAGGAGGCGACAGAGCTCACCACGAGCCTGAACGGCTTTCCAGAAGGAGTGAGGATGAGCAGAGATG  
GGGGAAAGGACCTGGCCAAGACAGAGGGAAGAGGGGAGCCAGGACAGCGGGGCTCCGGGGGAGGCCATGGAGAG  
ACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAGCGACTGGCAAAACAGGACCGGCGAGC  
CTTGACAGCTGTATGATCCAGGAGCTCGCTTCCGAGCGCAGAGTGTGGCGGAAACAGGAGGATCTGCAAGGCAGA  
AGGTTTCGGGAGCTGGTCTGAGAAGAGGGAAGAGGCAGAGT**TCAG**CTCACTGCACGCACCTGGCCCTCCATGGACGAG  
CAAGGGCATCCAGAAACGTGTAAATGACCCGAGTGTGACTGGGAAGGAGAACCTATTCTTACCAGGAACTGAG  
GAAGCTAAAATACAGAGGGTGACGTAGAAACACGCAGAAACCATTTCTAAAGAAAGTAGTGATCTTGTATTAAT  
TGAGCAGAAATCTCAGAGATTTTACCATTCTGTTATAAACTAGTATTTGTTGTTTAGCCAAAACAGAAAATGAT  
TTCACCTGGACAGTAGAAAAATATGTGTAATAATAGGGAAGAAAGTTAGTATTGGATCAGTGTGAGTCTTGAAGCA  
CTTTCAGTGCTGTGAGAACGACATCCACTTTGGGTTTCATTCTGTTTGAAGCAGAGGAGCTGTGAGTCACTCGTG  
CTTCTCGGTGGCCTCTGAGCCATGGTGTGAGTGAAGAGTAGTTCTGTTTGTACAACTTTGTGAGTCAGCCA  
TGCCCGCAAGCGTGCTGTGTTTTAGTCTGGTAGGAATATTTATCAGAGTTTACACTATATAAAACCCACAGC  
TTCACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAGAAACGGTTTCAGTCTCTGGATGGATGTGTTTG  
TGGTTTGAACCATTAACGTTTAAACCATGGTTTAAAGAAATTGCCCAAATAACAGAAATTTGTTTCGGGAAGGGA  
TAACTAGATATAGCATAACAGAGCCTGTTTTGAGTTTTAGATACTTTATTTGTAATAACTTAAATAGCTTTC  
TGAAACCGTGCACTTCTGAGTTTCTCCTTTCAGTGAATGTCTAAATGTCAATGTATTTTGGCACTGCGATT  
TAACCATTTATTAATAAAAAATTTGTTAAAGAAAAAAAAAAAAAAAAAAAAA

**FIGURE 509**

MRSEKEGAGGLRAA VAARGPSGREKLSALEVOFHRDSQQQEAETPPTSSSGCGGAGKPREEKRTALSKVVIRRL  
PPGLTKEQLEEQRLPLPAHDYFEFFAADLSLYPHLYSRAYINFRNPDDILLFRDRFDGYIFLDSKGLEYPAVVEF  
APFQKIAKKKLKKDAKTGSIEDDPEYKKFLETYCVEEEKTSANPETLLGEMEAKTRELIARRTPLLEYIKNRK  
LEKQRIREEKREERRRRELEKKRLREEEKRREERCKKKETDKQKKIAEKEVRIKLLKKPEKGEEPTTEKPKE  
RGEEIDTGGGKQESCAPGAVVKARPMEGSLEEPQETSHSGSDKEHRDVERSQQESEAQRYHVDDGRRHRAHHEP  
ERLSRRSEDEQRWGKGPQDRGKKGSQDSGAPGEAMERLGRAQRCDSPAPRKERLANKDRPALQLYDPGARFRA  
RECGGNRRICKAEGSGTGPEKREEAE

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**FIGURE 510**

GCCCCATCTCCTTGGGCTGCCCGTGCTTCGTGCTTTGGACTACCGCCAGCAGTGTCTGCCCTTCGCTGGGCC  
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCCTGGGCCCTTGGTTCTCCCC**ATG**ACACCAC  
CTGAACGTCCTCTCTCCTCCCAAGGGTGTGTGGCACCACCTTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC  
TGCTTGGGGCCAGGGGCTCCCTGGTGTGGCCTCACACCTTCAGCTGCCAGACTGCCCGTCAGCACCCCAAGA  
TGCATCTTGGCCACAGCACCTTCAAACCTGCTGCTCACCTCATTTGGAGCCCCAGCAAGCAGAACTCACTGCTCT  
GGAGAGCAACACGGACCGTGCTTCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCTGGTCCCCACCA  
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC  
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCAGAAGA  
TGGTGATCCAGGGCTGCAGGAACCTTGCTGCCTCGATGTACCACGGGGCTGCGTTCAGCTCACCAGGGAG  
ACCAGCTATCCACCACACAGATGGCATCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTTGGAGCCTTCG  
CTCTG**TAGA**ACTTGGAAAAATCCAGAAAGAAAAATAATTGATTCAAGACCTTCTCCCCATTCTGCCTCCATT  
TGACCATTTACAGGGTCTGCACCACTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCTGATCAAGTCACCG  
GAGCTTTCAAAGAAGGAATTTAGGCATCCAGGGGACCACACCTCCCTGAACCATCCCTGATGTCTGTCTGGCT  
GAGGATTTCAAGCCTGCCTAGGAATTTCCAGCCCCAAAGCTGTTGGTCTGTCCCACCACTAGGTGGGGCCTAGAT  
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGATGACTAGAGGCAGGGAGGGGACTATTATGAA  
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG  
AGACAGGCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAAGGCTGACCAAGAGAGAAAGTAGGATGAGG  
GATCACAGGGCCCCAGAAGGCAGGGAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG  
CACCTCGATGAAGCCCAATAAACCTCTTTTCTCTG

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**FIGURE 511**

MTPPERLFLPRVCGTTLHLLLGLLLVLLPGAQGLPGVGLTPSAAQTARQHHPKMHLAHSTLKPAAHLIGDPSKQN  
SLLWRANTDRAFLQDGFSLNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS  
SQKMVYPGLQEPWLHSMYHGAAPQLTQGDQLSTHTDGIPHLVLSPTVFFGAFAL

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**FIGURE 512**

TGGAAGGGCTGTCACCGGCTTGGCCCTTCCACACCAACTGGGGCAAGCCTGACCCGGCGACAGGAGGCATG  
AGGGGCCCCGGCCGAAATGACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGC  
TGAGCTCGGGACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAA  
TCCGTGAGCTGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCT  
GCGGGGCGCTCTGGCGGCTGGTCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTGCTGGGTCCAAGATGC  
AAGGCTTGCTGGAGCGCGTGAACACGGAGATACACTTTGTACCAAATGTGCCTTTAGCCCCCCCCAGCTGTC  
TTCGTTTCGTCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGA  
TCACTCGCCAGAACTTCTCCCGGTGCCCTGGAGCTGCAGTGTGAGCCGACTCCTCAACCTGCGACCCCCATGGA  
GTCCCCGGCCCTGGAGGCCACAGCCCCGACAGCCCCGAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCCGTTG  
GCCTCCTGCTGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACCGCGCGGAGGACACCCGCCCTGGGGAGC  
AGGTCCCCCGTCCCACTCCCAAGGACCTGCTGCTTGTGGAGCACTGAACCTGGCCAAGGCCTCATCTGGGGGA  
GGATACGTAGGCACACAGAGGGGAGTCACCAAGC

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**FIGURE 513**

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGALWR  
LVLAQRWMERLKTIVAGSKMQGLLERVNTIEIHFTKCAFQPPPSCLRFVQTNISRLLETSEQLVALKPWITRQNF  
SRCLELQCQPDSSSTLPPPWSPRPLEATAPTAQPFLLLLLLLPVGLLLAAAWCLHWQTRRRRTPRPGEQVPPVP  
SPQDLLLVEH



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FIGURE 514A

CTTCAGATAGATTATATCTGGAGTGAAGGATCCTGCCACCTACGTATCTGGCATAGTATTCTGTGTAGTGGGATG  
AGCAGAGAACAAAAACAAAATAATCCAGTGAGAAAAAGCCGTAATAAACCTTCAGACCAGAGATCTATTCTCCA  
GCTTATTTTAAAGCTCAACTTAAAAAGAAAGAACTGTTCTCTGATTCTTTTCGCCCTTCAATACACTTAATGATTAA  
CTCCACCCTCCTTCAAAGAAACAGCAATTTCTACTTTTATCTGCTATATGATTGATTTTGCACAGCTCATCTG  
GCCAGAAGAGCTGAGACATCCGTTCCCTACAAGAACTCTCCCCGGGTGGAACAAGATGCTATTATCAAGTGTC  
AGTCCCAATTATGACATCAATTTATATACATCGGAGCCCTGCCAAAAATCAATGTGAAGCAAACTCGCAGCCCCG  
CTCTCGCTCCCGCTACTCTACTGCTGTGTTTCATCTTTTGGTTTGTGGGCAACATCGCTGCTCACTCTCTGATA  
AACTGCAAAAGGCTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCCTCTCT  
ACTGTCCCTCTCTGGGCTCACTATGCTCGCCGCCAGTGGGACTTTGGAATACAATGTGTCACCTCTTGACAGGG  
CTCTATTTATAGGCTCTCTCTCTGGAATCTCTTCATCATCTCTCTGACAATCGATAGGTACCTGGCTGCTGCT  
CATGCTGTGTTTGTCTTTAAAGGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGATCACTTTGGGTGGTGGCT  
GTGTTTGGCTCTCTCCAGGAATCATCTTTACAGACTCTCAAAAAGAGGCTCTTCAATACCTGCAGCTCTCAT  
TTTCCCATCAGTCAGTATCAATCTCGAAGAATTTCCAGACATTAAAGATAGTCATCTTGGGGCTGGTCTGCGG  
CTGCTGTGATGGTCACTGCTGCTCGGAATCCTAAAAAATCTGCTTCGGTGTGCAAAATGAGAAAGAACAGGCAC  
AGGGCTGTGAGGCTTATCTTACCATCATGATTGTTTATTTCTCTCTGGGCTCCCTACAACATTTGCTCTCTCT  
CTGAACACCTTCCAGGAATCTTTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTGGACCAAGCTATGCAGGTG  
ACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCTTTTGTGGGGAGAAAGTCAGAAAC  
TACCTCTTAGTCTTCTTCCAAAAGCACTTGCCAAACGCTTCTGCAAAATGCTGTCTATTTTCCAGCAAGAGGCT  
CCCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAATATCTGTGGGCTTGTGACCGACT  
AAGTGGGCTGGTGACCCAGTCAGAGTTGTGCATGGCTTAGTTTTTCATACACAGCTGGGCTGGGGGTGGGGTG  
GGAGAGGCTCTTTTAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTCACTCAATTTATTTGGCATCTGTTTAA  
AGTAGATTAGATCTTTAAGCCATCAATTATAGAAAGCCAAATCAAAATATGTTGATGAAATAGCAACCTTT  
TTATCTCCCTTTCATGTCATCAAGTTATTGACAAACCTCTCCCTTCACTCCGAAAGTCTTCTATGTATATTTAA  
AGAAAGCTCCAGAAATGCTGATCTTGTAGTTTAGTATCTGAACAGGATCAACAAATTTATTTGAGAAATGTGA  
CAACTTTTTTACCTAGTACAAGGCAACATATAGGTTGTAATGTGTTTAAACAGGCTCTTGTCTTGCATGGGGA  
GAAAAGACATGAATATGATTAGTAAAGAAATGACACTTTTCATGTGTGATTTCCTCCCAAGGATGTTGTTAATAA  
GTTTCACTGACTTAGAACCCAGGCGAGAGACTTGTGGCTGGGAGAGCTGGGGAAGCTTCTTAAATGAGAAGGAAT  
TTGAGTTGGAATCATCTCTTCTGCGCAAGACAGAAGCCTCACTGCAAGCACTGCAATGGGCAAGCTTGGCTGTAGA  
AGGAGACAGAGCTGTTTGGGAAGACATGGGGAGGAAGGACAAGGCTAGATCATGAAACACCTTGACGGCATGCT  
CCGTCTAAGTCATGAGCTGAGCAGGGAGATCTGTTTGGTGTGTCAGAAGGTTTACTCTGTGGCCAAAGGAGGGT  
CAGGAAGGATGAGCATTTAGGCGAAGGAGACCACCAACAGCCCTCAGGTCAGGGTGAGGATGGCCCTTCTGCTAAGC  
TCAAGGCGTGAGGATGGAAGGAGGAGGAGGTATTCTGAAGGATGGGAAGGAGGAGGTATTCTGTCAGCATATGAG  
GATGCAAGTCAAGCAGAACTGGGTGGATTGTTTGGAAAGTGAAGGTCAGAGAGAGTCAGAGAGAATCCCTAG  
CTTTCAAGCAGATTGGAGAAACCTTGAAGAAACATCAAGCACAGAAGGAGGAGGAGGTTAGGTCAAGAAG  
AAGATGGATTGGTGTAAAGGATGGGTCTGGTTTGCAGAGCTTGAACACAGTCTACCCAGACTCCAGGCTGTCT  
TTCATGAATGCTTCTGACTTTCATAGATTTCCTTCCATCCAGCTGAATACTGAGGGGTCTCTCAGGAGGAGAC  
TAGATTTATGAATACACGAGGTATGAGGCTTAGGAACATACTTCAGCTCACACATGAGATCTAGGTGAGGATTGA  
TTACCTAGTAGCTATTTCATGGGTGTTGTGGGAGGATCTATGAGGAACCCACAGGCAAGCATTTAGCACATACATC  
ACATTCAATAAGCATCAACTCTTAGTTACTCATTACAGGATAGCACTGAGCAAAAGCATGAGCAAAAGGGGTCCC  
ATATAGGTGAGGGAAGGCTGAAAACTAAGATGCTGCCCTGCCACAGTCAACAGGTAGGTAGTATCTTTCTGCA  
TTTAAACGCTCAATAGGCAAAAGGGGGGAGGAGCATATTCAATTTGGAATAAGCTGCCTTGGCCCTTAAACCCAC  
AAAAGTACAATTTACCAGCCTCCGATTTTCAAGTGAATGGGGTGGGGGGGGCCCTTAGGTACTTATTTCCAGA  
TGCTTCTCTCAGACAAACCAAGAACAGAAATAATCGTCTCTCCCTTCTTGAATGAATATACCCCTTAGT  
GTTTGGGTATATTCAATTTCAAGGGAGAGAGAGAGGTTTTTTTCTGTTCTTTCTCATATGATTGTGCACATACTT  
GAGACTGTTTGAATTTGGGGGATGGCTAAAACCATCATAGTACAGGTAAAGTGAAGGAATAGTAAGTGGTGAGA  
ACTACTCAGGGAATGAAGGTGTCAAGATATAAGAGGTGCTACTGACTTTCTCAGCCTCTGAATATGAACCGTGA  
GCATTGTGGCTGTGACGAGGAAGCAACGAAGGAAATGTCTTCCCTTTGTCTTTAAGTTGTGGAGAGTGAACA  
GTAGCATAGGACCCCTACCTCTGGGCCAAGTCAAAGACATTCTGACATCTTAGTATTGTCATATTCTTATGATG

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**FIGURE 514B**

TGAAAGTTACAAATTGCTTGAAAGAAAATATGCATCTAATAAAAAACACCTTCTA

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**FIGURE 515**

MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPLYSLVFIGFVGNMLVILILINCKRLKSMTDIYLLNLAIS  
DLFFLLTVPFWAHYAAAQWDFGNIMCQLLTGLYFIGFFSGIFFIILLTIIDRYLAVVHAVFALKARTVTFGVVTSV  
ITWVVAVFASLPGIIFTRSQKEGLHYTCSSHPYSQYQFWKNFQTLKIVILGLVLP LLVMVICYSGILKTLRLCR  
NEKKRHRAVRLIFTIMIVYFLWAPYNIVLLNTFQEFFGLNCCSSSNRLDQAMQVTETLGMTGCCINPIIYAFV  
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL

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FIGURE 516A

TGCAGAGAACAGAGAAAGGACATCTGCGAGGAAAGTTCCCTGATGGCTGTCAACAAAGTGCACGCTCTCTATGGC  
TGTGTACGCTGAGCACACGATTTTATCGCGCCTATCATATCTTGGTGCATAAACGCACCTCACCTCGGTCAACCC  
TTGCTCCGCTCTATGAGACAGCGCTTTATATCCGATTTTATATGAGGGGAATCTGACGGTGGAGAGAGAATAT  
CTTGCTCAAGGCGACACAGCAGAGCGCCACAGGTGGCAGAAATCCACCCGAGCCGCTTCGACCGCGGGGTGGAA  
ACCACGGGCGCCCGCCCGGCTGCGCTTCCAGAGCTGAAGTGAAGCGAGTCTCTCCGCTCGGGCCACCGCC  
CAGCCCGCAGCCCGCCCGCCCGCCGATCTCACTCGCGCCGAGTCTCCCGCGCCACCCCGAGTTGGTGGGCGCA  
GAGCGGGAGGCGGGAGCGGGGCGGGCGCTGCGACCCGGGAACGCCGAGCCGGCAGAGCGCGGGAGGCG  
GCGACACGTGCGGCCAGAGCACCGGGGCCACCCGGTCCCGCAGGCCCGGGACCGCGCCCGCTGCGAGGCCGACA  
CGTGGAGAATACGGAGTTCTATACCAGAGTTGATTGTGATGSCACATACTTTTAGAGGATGCTCATTGGCCATT  
TATGTTTATAATCAGCTGGCTGTTGATTAAAGCAAAAATAGATGCGTGAAGAGAGCGGATGTGACTGTGAAGCC  
TTCCCATGTAAATTTTACTTGGATCCACTGTCAATATTACATGCTCTTTGAAGCCCGACAGAGGCTGCTTCTACTA  
TTCCAGACGTAACAAGTTAATCTGTACAAGTTTGACAGAAGAATCAATTTTACCATTGGCCACTCCCTCAATT  
TCAAGTCACAGGCTCTCCCTTGGTACAACCTTGTTTGTCTGCAAACTGGCGTGTATCAATAGTGTGATGAAATTC  
AATATGTGGAGCAGAGATCTTCGTTGGTGTGTCTCCAGAACAGGCTCAAAATTTATCTGTCATACAGAGGGGAGA  
ACAGGGGACTGTGGCTCGACCTGGGAAAGAGGACGAGACCCACTTATACACTGTACTACTCTACAGCTTAAG  
TGGACCAAAAAATTTAACTGGCAGAAGCAATGTAAAGACATTTATTGTGACTATTGGACTTTGGAATCAACCT  
CACCCCTGAATCACTGATCCAATTTTCACAGCCAAAGGTTACTGCTGTCAATAGTCTTGAAGCTCTCTTCACT  
TCCATCCACATTCACATCTCTGGACATAGTGAGGCCCTCTCTCCGTTGGGACATTAGAAATCAAAATTTCAAAGGC  
TTCCGTGAGCAGATGTACCTTTATTGGAGAGATGAGGGACTGGTACTGCTTAATCGACTCAGATATCGGCCAG  
TAACAGCAGGCTCTGGAATATGGTTAATGTTACAAGGCCAAAGGAAGACATGATTGCTGGATCTGAAACCAAT  
TACAGAATATGAATTTTCAGATTTCTCTAAGCTACATCTTTATAAGGGAAGTTGGAGTGTGGAGTGAATCAAT  
GAGAGCACAAACACCAGAAGAAGGCTACTGGGATGTAGATGTCTGTGACATGAAACGGCACATTGACTACAG  
TAGACAACAGATTTCTTTTTGGAAGAATCTGAGTGTCTCAGAGGCAAGAGGAAAAATTTCCCAATCAGGTT  
GACCTTGAGGAGCTGACAGAGGGGAAAGCCATGACACAGAACATCAGAGGACCACTCTCGACCAAGCATCT  
TCTAGAACCGGAAATTTGGGCTGTGGCTGTGTCTGACAGCAAAATCAAAGGCGAGTTCTCTGCCCACTCGTATTAA  
CATAATGAACCTGTGTGAGGCAGGGTTGTGTGCTCTCGCCAGGTCTCTGCAAACTCAGAGGGCATGGACAACAT  
TCTGGTGACTTGGCAGCCTCCCAGGAAAGATCCCTCTGCTGTTCAGGAGTACGTGGTGGAAATGGAGAGAGCTCCA  
TCCAGAGGTGACACACAGGTCCTCTAAACTGGCTACGGAGTCGACCCATAAATGTGTCTGCTCTGATTTCAGA  
GAACATAAAATCTACATCTGTTATGAAATCCGTGTGTATGCACCTCAGGGGATCAAGGAGGATCGAGCTCCAT  
CCTGGGTAACCTAAGCACAAAGCACCACAGTGGGCCCCACATAATGCCATCAGAGGAAAAGGGGAGCAT  
TTTAAATTTCAATGGAACAGCATTCAGCTCAGGAGCAAAATGGGCTGCCCTCTCCATATAGGATATATCTGGAAGGA  
ACGGGACTCTCAACTCCCGACTCTGACTGTGAAATTCCTACAGAGTCTCCCAAAATTCACATCCAATAAAGAG  
CCTGCAGCCCCGAGTGACATATGCTCTGTGGATGACAGCTCTGACAGCTGTGGTGAAGTTCCACGGAATGA  
GAGGAAATTTGTCTGCAAGGTAAGCCAAATGGATGGCGTTTGTGGCACCAAGCATTGCAATGCTATCATCAT  
GGTGGGCACTCTCAAGCATTTCTTCCAGCAAAAGGTGTTTGTCTCTCAGAGCCCTCAGACCTCAGCTCAGTGGT  
TAGCAGAGAAATTCAGATCCAGCAAAATAGCACTTGGCTTAAGAAATATCCCAATGACAGAGGAGAAGACAGACT  
GCCCTTGGACAGGCTCCTGTAGACTGGCCACGCTGAAGATCCTGAACCGCTGGTCACTCAGTGAAGTCTTCA  
TAAGTGACCCAGTTTTCAGACTTCCCCCTGCTCCAACTGGCCCAAAAGGAAAAGGAAATCCAAAGTCATCA  
GGCCTCTGAGAAAGACATGATGACAGCTGCCTCAAGCCACCACTCTCAAGAGCTTCCAAGCTGAGAGCAGACA  
ACTGGTGGATCTGTACAAGGTGCTGAGAGCAGGGGGCTCCGACCAAGACAGAAACCCAGCTCTCCCTGGAC  
GGTGCTCCAGCAGGTGACTTCCGACCCATGATGGCTATTACCTCTCAACATAGATGACTCCCTCTCACATGA  
GGCACTCTCGCTGACTCTCTGGAAGAACGTGAGGCTCAGCACATCTCCCTTTCTGTTTCCCTCAAGTCTCTCT  
CTACCCACTCACCTTCTCTGTGGTGATAAGCTGACTCTGGATCAGTTAAAGATGAGGTGTGACTCTCTCGCT  
CTGAGTGGTGGGCTTCAAGCCTTAAAGTCAGTGTGGCTCAACCAGCACAGCTGCCCAATTTCCCGAGCCCC  
TGCTCCAGAGCTGTCTACTCTGTGGTGCCACCATCGGTCTGGCTGACGTAGAGACAGGACCGCCAGCTCTGG  
GGAGTCTTAGGAAGTGGGAGTTGGTCTTCACTCAGATGCCCTCATCTTCCAGGGCCCTTAAATTTACATC  
CTTCACTGTGTGGACCTAGAGACTCCAACCTGAATTCCTAGTAACCTTCTTGGTATGCTGGCCAGAAAGGAAAT  
GAGGAGGAGAGTAGAAACACAGCTCTTAGTAGTAATGGCATACGCTTAGAGGACCAATCATGCAATGACTATT

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**FIGURE 516B**

TCTAAAGCACCTGCTACACAGCAGGCTGTACACAGCAGATCAGTACTGTTCAACAGAACCTCCTGAGATGATGGA  
AATGTTCTACCTCTGCACCTCACTGTCCAGTACATTAGACACTAGGCACATTGGCTGTTAATCACTTGGAAATGTGT  
TTAGCTTGA CTGAGGAATTAAATTTTGATTGTAAATTTAAATCGCCACACATGGCTAGTGGCTACTGTATTGGAG  
TGCACAGCTCTAGATGGCTCCTAGATTATTGAGAGCCTCCAAAACAAATCAACCTAGTTCTATAGATGAAGACAT  
AAAAGACACTGGTAAACACCAATGTAAAAGGGCCCCCAAGGTGGTCATGACTGGTCTCATTTCAGAAAGTCTAAG  
AATGTACCTTTTTCTGGCCGGGCGTGGTAGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGA

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**FIGURE 517**

MAHTFRGCSLAFMFIIITWLLIKAKIDACKRGDVTVKPSHVILLGSTVNITCSLKPRQGC FHYSRNKLILYKFDR  
RINFHHGHSLSNSQVTGLPLGTTLFVCKLACINSDEIQICGAEIFVGVAPEQPQNLSQIKGEQGT VACTW ERGRD  
THLYTEYTLQLSGPKNLTWQKQCKDIYCDYLD FGINLTPESPESNFTAKVTAVNSLGSSSSLPSTFTFLDI VRPL  
PPWDIRIKFKKASVSRCTLYWRDEGLVLLNRLRYRPSNSRLWNMVNVTAKGRHDLDDLKPFT EYEFQISSKLHL  
YKGSWSDWSESRAQTPEEEPTGMLDVWYMKRHIDYSRQQISLFWKNLSVSEARGKILHYQVTLQELTG GKAMTQ  
NITGHTSWTTVIPRTGNWAVAVSAANSKGSSLPTRINIMNLCEAGLLAPRQVSANSEGMDNI LVTWQPPRKDPSA  
VQEYVVEWRELHPGGDTQVPLNWLRSRPYNVSALISENIKSYICYEIRVYALSGDQGGCSSILGNSKHKAPLSGP  
HINAITEEKSGILISWNSIPVQEQMGCLLHYRIYWKERDSNSQPQLCEIPYRVSQNSHPINSLQPRVTYVLWMTA  
LTAAGESSHGNEREFCLQGGKANWMAFVAPSICIAIIMVGIFSTHYFQQKVFLAALRPQWCSREIPDPANSTCA  
KKYP IAEKQTQLPLDRLLIDWPTPEDPEPLVISEVLHQVTPVFRHPPCSNWPQREKGIQGHQASEKDMHMSASSP  
PPPRALQAESRQLVDLYKVLESRGSDPKPENPACPWTVLPAGDLPTHGYLPSNIDDLPSHEAPLADSL EELEFP  
HISLSVFPSSSLHPLTFSCGDKLTLDQLKMRCDLSML

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FIGURE 518

CATTGAGAGACAGAAGGTGGATAGACAAATCTCCACCTTCAGACTGGTAGGCTCCTCCAGAAGCCATCAGACAGG  
AAGATGTGAAAAATCCCCAGCACTCATCCAGAATCACTAAGTGGCACCTGTCTTGGGCGAAAGTCCAGGACAGA  
CCTCATTTGTTCTCTGTGGGAATACCTCCCCAGGAGGGCATCCTGGATTTCCTCCCTTGCAACCCAGGTCAGAAGT  
TTCATCGTCAAGGTGGTTTCTAGTATTTTCTCTGTCTAACAGCTCTGACTACCCACCCCACTTGGAGCACAGTG  
AAGACATCGTGGCCACTCCAATAACAGCAGGTCACAGCTGCTCTTCTGGAGGTGTCTACAGGTGAAAGGCCA  
GCGACCCAGTCAGGATTTAAGTTTACCTCAAAAATGGAAGATTTTAAACATGGAGAGTGACAGCTTTGAAGATTTT  
TGAAAGGTGAAGATCTTAGTAATTACAGTTACAGCTCTACCCCTGCCCTTTTCTACTAGATGCGCGCCCATGT  
GAACCAGAATCCCTGGAATCAACAAGTATTTTGTGGTCATTATCTATAGCCCTGGTATTCCTGCTGAGCTGCTG  
GGAAACTCCCTCGTGATGCTGGTCATCTTATACAGCAGGGTGGCGCGCTCCGTCAGTGATGCTACCTGCTGAAC  
CTAGCCTTGGCCGACCTACTCTTTGGCCCTGACCTTGGCCATCTGGGCGCCCTCCAAAGGTGAATGGCTGGATTTTT  
GGCACATTCTCTGTGCAAGGTGGTCTCACTCCTGAAGGAAGTCAACTCTATAGTGGCATCTGCTACTGGCCTGC  
ATCAGTGTGGACCGTTTACCTGGCCATTGTCCATGCCACACGCACACTGACCCAGAAGCGCTACTTGGTCAAATTC  
ATATGCTCTCAGCATCTGGGGCTGTGCTTGTCTGGCCCTGGCTGTCTTACTTTTTCCGAAGGACCGTCTACTCA  
TCCAATGTTAGCCAGCGCTGCTATGAGGACATGGGCAACAATACAGCAAATGGCGGATGCTGTTACGGATCCTG  
CCCCAGTCTTTGGCTTCATCGTGCCACTGCTGATCATGCTGTTCTGCTACGGATTCAACCTGCGTACGCTGTTT  
AAGGCCACATGGGGCAGAAGCACCGGGCCATGCGGGTCATCTTGTCTGTCTCTCATCTTCTGCTGCTGCTGG  
CTGCCCTACAACTGGTCTGCTGGCAGACCCCTCATGAGGACCCAGGTGATCCAGGAGACCTGTGAGCGCCGC  
AATCATCATGCACCGGGCTTGGATGCCACCGAGATTCTGGGCATCCTTACACAGCTGAGCTCAACCCCTCATG  
GCCTTCATTGGCCAGAAGTTTCGCCATGGACTCCTCAAGATTCTAGCTATACATGGCTTGATAGCAAGGACTCC  
CTGCCCAAAGACAGCAGGCCTTCTCTTGTGGCTCTTCTTCAGGGCACACTTCCCTACTCTCTCTAAGACCTCCTG  
CCTAAGTGCAGCCGCTGGGGTTCTCTCCCTTCTCTTCACAGTCACATTCCAAGCCCTCATGCTCCACTGTTCTCTT  
GGTCTCAGTGTCAATGCAGCCCCATTGTGGTCAAGGAAGTAGAGGAGGCCACGTTCTTACTAGTTTCCCTTGC  
ATGGTTTAGAAAGCTTGCCTTGGTGCCTCACCCCTTGGCCATAATTACTATGTCAATTTGCTGGAGCTCTGCCCATC  
CTGCCCTGAGCCCATGGCACTCTATGTTCTAAGAAGTGAAATCTACACTCCAGTGAGACAGCTCTGCATACTC  
ATTAGGATGGCTAGTATCAAAAGAAAGAAAATCAGGCTGGCCAAACGGGGTGAAACCTGTCTCTACTAAAAATACA  
AAAAAAAAAAAAAAAAATTAGCCGGCGTGGTGGTGAGTGCTGTAATCACAGCTACTTGGGAGGCTGAGATGGGAGA  
ATCACTTGAACCCGGGAGCAGAGGTTGCAGTGAGCCGAGATTGTGCCCTGCCATCCAGCCTGAGCGACAGTGAG  
ACTCTGTCTCAGTCCATGAAGATGTAGAGGAGAACTGGAACCTCTGAGCGGTTGCTGGGGGGGATGTAAAATGG  
TGTGACCATCTCAGAAAGACAGTATGGCAGCTTTCTCAAACTTCAGACATAGAATTAACACATGATCCTGCAAT  
TCCACTTATAGGAATTGACCCACAAGAAATGAAAGCAGGGACTTGAACCCATATTGTACACCAATATTTCATAGC  
AGCTTATTCACAAGACCCAAAGGCAGAAGCAACCCAAATGTTTCATCAATGAATGAATGAATGGCTAAGCAAAAT  
GTGATATGTACCTTAACGAAGTATCCTTCAGCCTGAAAGAGGAATGAAGTACTCATACATGTTACAACACGGACGA  
ACCTTGAAACTTTATGCTAAGTGAATAAGCCAGACATCAACAGATAAATAGTTTATGATTCCACCTACATGAG  
GTACTGAGAGTGAACAAATTTACGAGACAGAAAGCAGAACAGTGATTACAGGGGACTGAGGGGAGGGGAGCAT  
GGAAGTGACGGTTTAAATGGGACAGGGTTTATGTTTAGGATGTTGAAAAAGTTCTGACAGATAAACAGTAGTGATA  
GTTGTACCGCAATGTGACTTAATGCCACTAAATGACACTTAAAAATGGTTTAAATGGTCAATTTTGTATGTAT  
ATTTTATATCAATTTAAAAAAAACCTGAGCCCCAAAAGGTATTTTAACTCAAGGCTGATTAAACCAAGGCTA  
GAACCACTGCTATATTTTAAATGATTTCATTAATCATCTTTTTTAAATGAAGCACTTTTACTTGGGT  
GTTTAT

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**FIGURE 519**

MEDFNMESDSFEDFWKGEDLSNYSYSTLPPFLLDAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILY  
SRVGRSVTDVYLLNLALADLLFALTLP IWAASKVNGWIFGTFLCKVVSLLKEVNFYSGILLLACISVDRYLAIVH  
ATRTLTKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDMGNNNTANWRMLLRILPQSFQFIVPLL  
IMLFCYGFTRLTLFKAHMGQKHRAMRVIFAVVLIFLLCWLPLYNLVLLADTLMRTQVIQETCERRNHIDRALDATE  
ILGILHSCLNPLIYAFIGQKFRHGLLKILA IHGLISKDSL PKDSRPSFVGSSSGHTSTTL



## FIGURE 520

TTGGGGGTTTATTCTCTCCCTCTAACTTGACAGGGTCTTGCTCTGTCACTCAGGCAAGATGCAGTAGTGTGA  
TCACTTCTTACTGCCGCCTCAAGCTTCCAGCCTCAACTCAAGCAATCCTCCCACCTCAGCCACCCAAAGTGCTGG  
GACTACAGATTAAAGATGACCCAAAATAAATAAAGCTTTGTTCCAAAGCCCAATGTGTATCTAGTGAAGTGCCGTGAT  
GGAGGATGGGGCTGGGCGGTAGCTGTTTCATTTTCTTCGTGAAGTCTTCACCTACGGCATCATCAAGACATTT  
GGTGTCTCTTTTAATGACTTAATGGACAGTTTTAATGAATCCAATAGCAGGATCTCATGGATAATCTCAATCTGT  
GTGTTTGTCTTAACATTTTCAGCTCCCTTCGCCACAGTCCTGAGCAATCGTTTCGGACACCGCTCGGTAGTGATG  
TTGGGGGGGCTACTTGTACGACACGGGATGGTGGCGGCTCCTTCTCACAAGAGGTTTCTCATATGTACGTGCGC  
ATCGGCATCATCTCTGGTCTGGGATACTGCTTAGTTTTCTCCCAACTGTAACCATCTATCACAATATTTTGGC  
AAAAGACGTTCCATAGTCACTGCAGTTGCTTCCACAGGAGAATGTTTCGCTGTGTTTGGCTTTCGCCACGCAATC  
ATGGCTCTGAAGGACGCGATTGGCTGGAGATACAGCCTCCTCTTCGTGGGCTACTACAGTTAAACATTGTCTC  
TTCGGAGCACTGCTCAGACCCATCATATCAGAGGACCAGCGTCACCGAAAATAGTCATCCAGGAAAATCGGAAA  
GAAGCGCAGTATATGCTTGAAAATGAGAAAACAGAACCTCAATAGACTCCATTGACTCAGGAGTAGAACTAACT  
ACCTCACCTAAAAATGTGCCTACTCACACTAACCTGGAACGTGAGCCGAAAGCCGACATGCAGCAGGTCTCGGTG  
AAGACCAGCCCCAGGCCAAGCGAAAAGAACCCCGCTATTAGACTTCTCCATTTTGAAGAGAAAAGTTTTATT  
TGTTATGCATTATTTGGTCTCTTTGCAACACTGGGATTCTTTGCACCTTCCTTGTACATCATTTCTCTGGGCATT  
AGTCTGGGCATTGACCAGGACCCGCTGCTTTTTTATTATCTACGATGGCCATTGCAGAAGTTTTCGGAAGGATC  
GGAGCTGGTTTTGTCTCAACAGGAGGCCATTTCGTAAGATTACATTGAGCTCATCTGCGTCATCTTATGTACT  
GTGTCCTCTGTTTGCCTTTACTTTTGTCTACTGAATTCTGGGGTCTAATGTCTATGCAGCATATTTTTTGGGTTTATG  
GTTGGAACAATAGGAGGACTCACATTCCACTGCTTGTGTAAGATGATGTCGTGGGCATTGCAGAAGATGCTCTCT  
GCAGCTGGGGTCTACATCTTCACTCAGAGCATAGCAGGACTGGCTGGACCGCCCCCTTGCAGGTTTGTGGTGGAC  
CAAAAGTAAGATCTACAGCAGGGCCTTCTACTCTGCGCAGCTGGCATGGCCCTGGCTGCTGTGTGCTCGCCCTG  
GTGAGACCGTGTAAGATGGGACTGTGCCAGCGTCACTCACTCAGGTGAAACAAAGGTAGTGAGCCATCGTGGGAAG  
ACTTTACAGGACATACCTGAAGACTTTCTGGAATGGAATCTTGCAAAAAATGAGCACAGAGTTACAGTGCAAAATG  
GAGCCGGTATGACACACTTTCTTACAACAACAGCCACTGTGTTGGCTGGAGAGGGATGGGTGGGCCCCAACGGGG  
ACACAAGGAGGCAGAGGAGCTAACCCCTCTACTCCACTTTCAAACATACATTTTAAAGGGAATGTGTATGTGAAG  
AGCACTACCAACATCGCTTTTGTTTTGTGTTTTGTTTTTAAAGCTTTTTTTTTTGTCTGTTTTTAAAGCCAAA  
ACAAAAACAACCAAGCACTCTCCATATATAAACTCGGCTGTATTACAGTAGCAATAACAAGAGATATGTAGAAAG  
ACTCTTTGGTTCACATTCCGATATTAATAAGTAGTACATGAAGTGGCAAAGTGGTTTTTAAAGCTTTTCAGTGGGA  
TAAATGATTTCTTTTTTCTTTCTTCTCTATGGTCTTGCTGAATAAACTACTCTCTGAATAAAACAAC  
ATCCAACCCAGTCAATTGAATGAAATGGCCAGTC

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**FIGURE 521**

MTQNKLKLCSEKAVYTEVPDGGGWAVAVSFFFVEVFTYGIKTFGVFFNDLMSDFNESNSRISWIIISICVFVLT  
FSAPLATVLSNRFQHRVLVVMLGGLLVSTGMVAASFQEVSHMYVAIGIISGLGYCFSLPTVTILSQYFGKRRSI  
VTAVASTGECFAVFAPAFAPAIMALKERIGWRYSLLFVGLLQNLNIVIFGALLRP IIIRGPASPKIVIQENRKEAQM  
LENEKTRTSIDSIDSGVELTTSPKNVPTHNLLEPKADMQQVLVKTSPRPSEKKAPLLDFSILKEKSFICYALF  
GLFATLGGFFAPSLYIIPLGISLGIDQDRAAFLSTMAIAEVFGRIAGAFVLNREPIRKIYIELICVILLTVSLFA  
FTFATEFWGLMSCSIFFGFMVGTIGGLTFHCLLKMMSWALQKMSSAAGVYIFIQSIAGLAGPPLAGLLVDQSKIY  
SRAFYSCAAGMALAAVCLALVRPCKMGLCQRHHSGETKVVSHRGKTLQDIPEDFLEMDLAKNEHRVHVQMEPV

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**FIGURE 522**

GCGGGGTAGTCGGCGCGAGGCGGAGCTTGGCAGTTCCGTCCACTTCAGCCGAGCGTCCCTCGCCGGGTGCTCG  
CCGCAGCCTCCGGAGAGGAACAGACCCCTCACTCTCTCTGTGTCAGAAAAATGCTGTGCTCCAGCTCAGCCACCTGCTG  
AAGGGACAGAAGGGACTGCCCCAGGTGGGGGTCCCCCTGGCCCTCCTCCTAACATGACCAGTAACAGACGACTAC  
AGCAAACCCAGGCACAAGTGGAGGAGGTGGTGGACATCATACGTGTGAACGTGGACAAGGTCCCTGGAGAGGGACC  
AGAAGCTGTCAGAGCTGGATGACCGAGCTGATGCCTTGCAAGCAGGAGCATCACAAATTGAGAGCAGTGCTGCCA  
AGCTAAAGAGGAAGTATTGGTGGAAAACTGCAAGATGATGATCATGCTGGGAGCCATCTGTGCCATCATCGTGG  
TAGTTATTGTAAGGCGGGACTGAAGAGCTGGAAGAAAGCAGTCAGTACCCCTCCCAACGGCCCCCTCGAAGGTCT  
CCACTCTCCTCTGGGCTCCTCCTTGCCCTAATGCAGGGGGTCACCGCTGGAGAAGAACCCACCTGTCCCTCGATGT  
GTCCCAAGCCTGGAGCGAATCCGTCCTCTTGCTCTCCACGCCCTATCAGGAATCATTCTGGGGTTTCTGTGCC  
CTCTGAGGCTCACCAGGTGTAGTTGGCCTTGTTCTTTGGGGGTATTAGCCCTTCTACTTTCTTTCTCACCCACCC  
TGTACCCCTCTTCTGTGTCTCTGCTATCCCCCTTCTCTCCACCACCCATGTGCATGAGCAATGTGCAACAAA  
ACCTTGGGACTTTGCAGTCAAATGAAGCTGA

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**FIGURE 523**

MSAPAQPPAEGTEGTAPGGGPPGPPNMTSNRRLOQTQAOVEEVVDIIRVNVDKVLERDQKLSLDDRADALQAG  
ASQFESSAAKLKRKYWWKNCKMMIMLGAICAIIVVVIVRRD

## FIGURE 524

CACACCTGACAAGCTGCCAGGCAGGTTCTCTCTCTCACATACTGACCCACGGCTCACCCCTCTCTCCCTGG  
AAAGGACACCA**ATG**AGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGG  
GGGGCCCCAGGGCTCCAGGCGGTGCTTGTTCTCTCAGCCTCTTCTCTTCCCTGATCGTGGCAGGCGCCACCACGCT  
CTTCTGCCTGCTGCACCTTTGGAGTGATCGGCCCCAGAGGGAAGAGTCCCCAGGGACCTCTCTCTAATCAGCCC  
TCTGGCCAGGCAGTCAGATCATCTTCTCGAACCCCGAGTGACAAGCCTGTAGCCCATGTTGTAGCAAAACCTCA  
AGCTGAGGGGACAGCTCCAGTGGCTGAACCGCCGGCCAATGCCCTCCTGGCCAAATGGCGTGGAGCTGAGAGATAA  
CCAGCTGGTGGTGCCATCAGAGGGCCTGTACCTCATCTACTCCAGGTCTCTTCAAGGGCCAAGGCTGCCCTC  
CACCCATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCCTACCAAGCAAGGTCAACCTCCTCTCTGC  
CATCAAGAGCCCTGCCAGAGGGAGACCCAGAGGGGGCTGAGGCCAAGCCCTGGTATGAGCCCATCTATCTGGG  
AGGGGTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCTGAGATCAATCGGCCCGACTATCTCGACTTGGCCGA  
GTCTGGGCAGGTCTACTTTGGGATCATTGCCCTG**TGA**GAGGACGAACATCCAACCTTCCCAAACGCTCCCTCG  
CCCCAATCCCTTTATTACCCCTCCTTCAGACACCTCAACCTCTTCTGGCTCAAAAAGAGAATTGGGGGCTTAG  
GGTCGGAACCCAAGCTTAGAACCTTTAAGCAACAAGACCACCACTTCGAAACCTGGGATTCAGGAATGTGTGGCCT  
GCACAGTGAAGTGTGGCAACCACTAAGAAATTCAAACTGGGGCTCCAGAACTCCTACTGGGGCTACAGCTTTGAT  
CCCTGACATCTGGAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAATGCTGCAGGACTTGAGAAGACCTCA  
CCTAGAAATTGACACAAGTGACCTTAGGCCTTCTCTCTCCAGATGTTTCCAGACTTCTTGAGACACGGAGCC  
CAGCCCTCCCCATGGAGCCAGCTCCCTCTATTATGTTTGCACTTGTGATTATTATTATTATTATTATTATT  
TTATTACAGATGAATGTATTATTATTGGGAGACCGGGGTATCCTGGGGAGCCCAATGTAGGAGCTGCCTTGGCTC  
AGACATGTTTTCCGTGAAACGGAGGCTGAACAATAGGCTGTTCCTATGTAGCCCCCTGGCCCTGTGCTCTCTT  
TTGATTATGTTTTTAAATATTATCTGATTAAGTTGCTAAACAATGCTGATTGGTGACCAACTGTCACCTCAT  
TGCTGAGGCCTCGCTCCCCAGGGAGTTGTGCTGTAATCGGCCTACTATTTCAGTGGCGAGAAATAAAGGTTGCT  
TAGGAAAGAA

**FIGURE 525**

MSTESMIRDVELAEALPKKTGGPQGSRRCLFLSLFSLIVAGATTLCLLHFGVIGPQREESPRDLSLISPLAQ  
AVRSSSRTPSDKPVAVHVANPQAEGLQWLNRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGQGCPSHV  
LLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEPYLGGVFQLEKGDRLSAEINRPDYLDFAESGQ  
VYFGIIAL

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FIGURE 526A

CATGGCGGCGACTGCGGCAAAGCGAGAGCCTCGGAGACGCCGCTGCGCGCAGCACAGCCGGAGATCTGAGCCGAC  
ACTGGGGGCGAGTCCGCGAGCCCGGCACTCTCTCGATGAGTCGGAGAAGTCCCCTGTATCAGAGTAAAGTGGACG  
TGAGCTTTGATTGTGATTGTGGTGAGCTGGAGCCACCTGATCCTAACAAAAGACATCTTCTGTTAAACCAACGAGC  
CGCCAGGCTTCTGTGTAATATAATATATAGCAACAAAGGAAAAAGAGCAAAACGGAATAGTGCTTACCATG  
CACCTTAGAATGATGCTGCTCAGGACCAGTCCAACACTGAATGTATCTGCATCTGTGAGGAGAAATGTTTCATAGAAG  
CCTGTTGTGTCATATTTATTCACTTTTGTGTTAAATGTTAAATCGTTTAGCAGCGGTAATCTGAGTGCACAGATATG  
TCATTTTCATTCGCTTTGAGTTTCTTGTTCCTGTTAAATGCTGCGAGTTCGTCGCCCTTCTTGTAACATATGAGT  
ACTGCAATCTTTTAAATCTCAATATGAATAGAGCTTTTGTAGCTTTAAATCTAAGGGGAACCTGCAGAGGCGCTGT  
TTGGCATATGCAATGAACATCAAGAAACCATCTTGCTGTGGAAGCATAATTATTTTCTCTCCCTTTTGTAAAG  
ATCTTTCTTTTGTAGCCAGTTTCTTCTCTTGTTTACACAAGTTCAAATTTGAAAGGAAAAAGGCAATAGTAAGGGT  
TTCAAATGCGCAGAGAAATTTGAAAGTCTCATGAACATTCATGGTTTGTATCTGGGTTCTAGGTATATGGACTTA  
AAACCATTTGGGTTGTGGAGGCAATGGCTTGGTTTTCCTGTAGACAACTGCTGACAAAAGAGTACCTCA  
AAGAAAAATGTCTTACTGATCCCCAGAGTGTCAACATGCTCTACGTGAATCAAAATTTATAGAAGACTTGAC  
CATGATAACATTTGTGAAAGTGTTTGAGATCTTGGTCCCAGTGGAAAGCAATTAACACAGCATGTGGGCTCTCTT  
ACGGAACCTGAACAGTGTTTACATTTGTCAGGAGTACATGGAGACAGACTTGGCTAATGTGCTGGAGCAGGGCCCT  
TTACTGGAAGAGCATGCCAGGCTTTTTCATGTATCAGCTGCTACGGGGGCTCAAGTATATTCACCTGCAAAATGTA  
CTGCACAGAGATCTCAAAACGACTTAATCTTTTCATTAATACGGAAGACTTTGGTGTGAAGATAGGTGACTTTGGT  
CTTGACGGAATCATGGATCCTCATTTATCCCATAAAGGGTCTATCTTCTGAAGGATGGTTACTAAATGGTACAGA  
TCTCCACGCTCTTTTACTTTTCTCCATAAATTTACTAAAGCCATTGACATGTGGGCTGCAGGCTGCATCTTTGCT  
GAAATGCTGACTGGTAAACCCCTTTTGTGAGGTGCACATGAACCTTGAACAGATGCAGCTGATTTTGAATCTATT  
CTGTTGTACATGAGGAAGATCGTCAGGAGCTTCTCAGCGTAATTCAGTTTACATTAAGAAATGACATGACTGAG  
CCACACAAACCTTTAACTCAGCTGCTTCCAGGAATTAGTCGAGAAGCACTGGATTTCCTGGAAACAAATTTTCCA  
TTAGCCCCATGATCGGTTAACAGCAGAAGAAGCACTCTCCCATCTTACATGAGCATATATCTTTTCCAATG  
GTAGAGCAATTTGATGCCAATCTTCAAGCCATCTTTTCATATTGAAGATGAAGTTGATGATTTTGGTATGTGATGAAC  
AGTCACATTTATAACTGGGAAAGGTATCATGATTGTCAGTTTTCAGAGCATGATTGGGCTGTACATAACAACTTT  
GATATTGATGAAGTTCAGCTTGATCCAAGAGCTCTGTCGATGTCATGATGAAGAAGTCAAGTGTGATCTCC  
CGAAAAATTTGGATGGAGATCGGGAAGGATCTGAGGATCTGCTTTTGATACCAATTACTCTACTGAGCCT  
TGTGGCAATACCTCAGATCATCATGAAACAAATATTGTGATCTGGAGTGTAGGCCATCTGTGAACACAAACAG  
AGGTCATCATATATTTAGATAAATTTAGTTTGGAGAGAGAGTGAAGTTAACCATTAATGATGAACCCAAGCTTATT  
ATAGATCTTTCCAATTTGAAAGAACAAAGCAAGGAAAAATCTGATAGAAGGCCAAATCAAAATGTGAAAGGAAT  
GGATTGGTTAAAGCCAGATAGCGCTAGAGGAAGCATCACAGCAACTGGCTGGAAAGGAAAGGAAAAAGAAATCAG  
GGATTGATTTGATTCCTTTATTGCAAGGAACATTTACGTTAGTTCAGGATGAGGCTACTGATGTTGTGTTGAT  
AAATTAATGACTTGAATAGCTCAGTGTCCCAACTAGAATTGAAAGTTTGATATCAAAGTCAGTAAGCCAAGAA  
AAACAGGAAAAAGGAATGGCAAACTGGGCTCAATTAGAAGCCTTGTACCAGTCTCTTGGGACAGCGCAATTTGTG  
AGTGGTGGGAGAGCTGTTTTTTCATAAATCAGTTTGTGAGGTAAGGAAGGATGAACAAAGTGAAGAAGGAAAC  
ACTTACACTAGTTACTTGGACAAGTCTTTAGCAGGAAGAAGATCACTGAATGCTAGAACTGAGCCAGTAGAG  
GTAGGGGAAGCTTGGGAGAGAGGACATGAGGAAGGATTTCTGAACACAGTGGGAGTTCCTCTTTAAACAAGCAG  
CTGAGTCCATAGGCATCCACAGTTTTCACAGTCCAGTTGGGTCAACCATTAAGTCAATACAGGCCACATTAACA  
CCTTCTGCTATGAATCTTCCCTCAAATTCCTCATCAACATACAGCAGCATCTGAAACATCTGAACCTAAAC  
ACTCAGCAGACATTTATCTTGTATTCTTCATGAAATGTGTTTTGCTTTTTTATCTAGTGTTTTAAAGTCATT  
TTTTTCTGAAATCAGATGGTGTCAATTTAGTAAGGATTTTATGAGTCTTGTGTTTTTAAATCCAGACTTTCTTTT  
TCTCATGTGTAGATAGTTTTCATTTTAACTGGCATGTCAATTGCACACAAAAATAAGACTAGAGCAAAATAATG  
CAACGAGGAGGAGAAAGAAATGCATCAAGACAAGAACATCTCTCATAGAACATGATCTGTTTACAGGAA  
CAAACCTTGCCCTGAAATTTACACAGTGAGACTGTACATAATTGCATGAAAAATAGCTATTTTTTCTTAAGACAT  
TTTTCTTATTCATGAATATTTTCAAGTTTTCATACTGTACACATTTCTTAAACACATGATACCAGCAGCAACTGA  
AAATGAATGCCGAATTTTGTGACATGTGTTATCTACCTCAAGGTAACAGAGTATGTGGCAAAACATATACCAC  
CCATAGTGCTTCAAAAAATGCATCTTATTAGCCAGCGTTTATTGTAGTAAACTATCTTAATAAACCTCACTC  
ACTGTTTATAAATGTTCTGGTATGCTTTCTTATAGTGAAGTGTTAATACATCACACTTTATTTTATTAGCAAA

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**FIGURE 526B**

TCAGTATATTTCTGTATTTAATTATAAAAAATTAACCTAGTTTTTAAAAATTTATTGCAAATATACTTTTTCCA  
TTTGGCACTATGGTTTGTTCCTACCTAGCTGCACTATAATGTCAGCTTATCCTAAGGCTGTCCACGTACTTAA  
TTTACTTAAGTGTTCATTTTAAGTAACGTGCTCACTGTGTATAGGAATTTGTATTTTGGAGGTGCTTGATCTATC  
TACAAAGAAAAATTAATTAGGAATTACTTTATTATAAAATGCTCCTAGAAGTCTTAATTGTGTTATTTTTTAAA  
AAAACAAATGTAGACTTGTGTGCATGGAAGTAATTAAGGTACATCATTATTGTAGTTTAAAAGTTGTACATGAT  
AAGACATTTTGTCTTTACTGTATGTTTTACTGAATGATCTATTCCTCCATCCCAAGGCAAGCATGAATAAAATTA  
GGTTAAACGTAGCATGTGGCATCGCAGTCTCTTAGAATTTGTTTCATCTATTTTATTTTATTGAATACTGTCTGT  
ATCTTTGGTTATCCTGTTTGAAGAAAAAGGACAAATAAACATGGCCAGCAAATACAAAAA



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**FIGURE 527**

MAEFESLMNIHGFDLGSRYMDLKPLGCGGNLVFSAVDNDCKRVAIKKIVLTD PQSVKHALREIKIIRRLDHD  
NIVKVFEILGPSGSQ L TDDVGS L TELNSVYIVQEYMETDLANVLEQGPLEEHARLFMYQLLRGLKYIHSANVLH  
RDLKPANLFINTEDLV L KIGDFGLARIMDPHYSHKGHLSEGLVTKWYRSPRLLSPNNYTKAIDMWAAGCIFAEM  
LTGKTLFAGAHELEQMQLILESIPVVHEEDRQELLSVIPVYIRNDMTEPHKPLTQLLPGISREALDFLEQILTFS  
PMDRLTAAEALSHPYMSIYSFFPMDEP ISSHPFHIEDEVDDILLMDETHSHIYNWERYHDCQFSEHDWPVHNNFDI  
DEVQLDPRALSDVTDEEEVQVDP R KYLDGDREKYLEDPAFDTNYST E PCWQYSDHHENKYCDLECSHTCN Y KTRS  
SSYLDNLVWRESEVNHYEYEPKLIIDL SNWKEQSKEKSDKKGKSKCERNGLVKAQIALEEASQQLAGKEREKNQGF  
DFDSFIAGTIQLSSQHEPTDVVDKLNLDLNSSVS QLELKS L ISKSVSQEKQEGMANLAQLEALYQSSWDSQFVSG  
GEDCFFINQFCEVRKDEQVEKENTYTSYLDKFFSRKEDTEMLETEPVEDGKLGGERGHEEGFLNNSGEFLFNKQLE  
SIGIPQFHS P VGSPLKSIQATLTPSAMKSSPQIPHQTYSSILKHLN

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**FIGURE 528**

GTAAAGCTAGACCGATCTCCGGGGAGCCCCGGAGTAGGCGAGCGCGCGCCGACGCTAGTTGAGCGCACCCCCCG  
CCCCCCCCAGCGGCGCGCGCGGGCGGCGGTCCAGGCGGCATGAGAGGACGGCCTGTGCCGCGTGACCAGCA  
GTACGAATGCGTGGCGGAGATCGGGGAGGGCGCCTATGGGAAGGTGTTCAAGGCCCGGACTTGAAGAACGGAGG  
CCGTTTCGTGGCGTTGAAGCGCGTGCGGGTGCAGACCGCGGAGGAGGGCATGCCGCTCTCCACCATCCGCGAGGT  
GGCGGTGCTGAGGCACCTGGAGACCTTCGAGCACCCCAACGTGGTCAGGTGTTTGTATGTGTGCACAGTGTACAG  
AACAGACAGAGAAACCAACTAACCTTTAGTGTTTGAACATGTCGATCAAGACTTGACCATTACTTGGATAAAGT  
TCCAGAGCCTGGAGTGCCCACTGAAACCATAAAGGATATGATGTTTCAGCTTCTCCGAGGTCTGGACTTTCTTCA  
TTCACACCGAGTAGTGCAATCGCGATCTAAACCACAGAACATTCTGGTGACCAGCAGCGGACAAATAAACTCGC  
TGACTTCGGCCTTGCCCGCATCTATAGTTTCCAGATGGCTCTAACCTCAGTGGTCGTCACGCTGTGGTACAGAGC  
ACCCGAAGTCTTGCTCCAGTCCAGCTACGCCACCCCGTGGATCTCTGGAGTGTTGGCTGCATATTTGCAGAAAT  
GTTTCGTAGAAAGCCTCTTTTTCGTGGAAGTTCAGATGTTGATCAACTAGGAAAAATCTTGGACGTGATTGGACT  
CCCAGGAGAAGAAGACTGGCCTAGAGATGTGGCCTTCCAGGCAGGCITTTTCATTCAAATCTGCCCAACCAAT  
TGAGAAGTTTGTAAACAGATATCGATGAACTAGGCAAAAGACCTACTTCTGAAGTGTTTGACATTTAACCCAGCCAA  
AAGAATATCTGCCTACAGTGCCTGTCTACCCATACTTCCAGGACCTGGAAAGGTGCACAGAAAACCTGGATTCT  
CCACCTGCCGCCAGCCAGAACACCTCGGAGCTGAATACAGCCTGAGGCTCAGCAGCCGCCCTTAAGCTGATCCT  
GCGGAGAACACCCCTTGGTGGCTTATGGGTCCCCCTCAGCAAGCCCTACAGAGCTGTGGAGGATTGCTATCTGGAG  
GCCTTCCAGCTGCTGTCTTCTGGACAGGCTCTGCTTCTCCAAGGAAA

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**FIGURE 529**

MEKDGLCRADQQYECVAEIGEGAYGKVKARDLKNNGRFVALKRVRVQTGEEGMPLSTIREVAVLRHLETFEHPN  
VVRLFDVCTVSRTDRETKLTLVFEHVDQDLTTYLDKVPEPGVPTETIKDMMFQLLRGLDFLHSHRVVHRDLKPQN  
ILVTSSGQIKLADFGGLARIYSFQMALTSVVVTLWYRAPEVLLQSSYATPVDLWSVGCIFAEMFRKPLFRGSSDV  
DQLGKILDVIGLPGEEDWPRDVALPRQAFHSKSAQPIEFVTDIDELGKDLLKCLTFNPAKRISAYSALSHPYF  
QDLERCKENLDShLPFSQNTSELNTA

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**FIGURE 530**

GTCTGCCCTCTCTGCTCGCCCTGCCTAGCTTGAGGATCTGTCACCCAGCCATGAGGATTATCGCCCTCCTCGCT  
GCTATTCTCTTGGTAGCCCTCCAGGTCGGGCAGGCCCACTCCAGGCAAGAGGTGATGAGGCTCCAGGCCAGGAG  
CAGCGTGGGCCAGAAGACCAGGACATATCTATTTCTTTGCATGGGATAAAAGCTCTGCTCTTCAGGTTTCAGGC  
TCAACAAGGGGCATGGTCTGCTCTTGCAGATTAGTATTCTGCCGGCGAACAGAACTTCGTGTTGGGAACTGCCTC  
ATTGGTGGTGTGAGTTTCACATACTGCTGCACGCGTGTGATTTAACCGTTCTGCTGTCCAGAGAATGTCATGCTG  
GGAACGCCATCATCGGTGGTGTAGCTTCACATGCTTCTGCAGCTGAGCTTGCAGAAATAGAGAAAAATGAGCTCA  
TAATTTGCTTTGAGAGCTACAGGAAATGGTGTTCCTCTATACTTTGTCCTTAACATCTTTCTTGATCCTAAAT  
ATATATCTCGTAACAAG

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**FIGURE 531**

MRI IALLAA ILLVALQVRAGPLQARGDEAPGQEQRGPEDQDISISFAWDKSSALQVSGSTRGMVCSCRLVFCRRT  
ELRVGNCLIGGVSFTYCCTRV

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**FIGURE 532**

CAGTCTCA**ATG**GGGGCACTGGGGCTGGAGGGCAGGGGTGGGAGGCTCCAGGGGAGGGGTTCCCTCCTGCTAGCTG  
TGGCAGGAGCCACTTCTCTGGTGACCTTGTGTGCTGGCGGTGCCTATCACTGTCTCGCTGGCTGTGCTGGCCTTAGTGC  
CCCAGGATCAGGGAGGACTGGTAACGGAGACGGCCGACCCCGGGGCACAGGCCAGCAAGGACTGGGGTTTCAGA  
AGCTGCCAGAGGAGGAGCCAGAAACAGATCTCAGCCCCGGGCTCCCAGCTGCCACCTCATAGGCGCTCCGCTGA  
AGGGGCAGGGGCTAGGCTGGGAGACGACGAAGGAACAGGCGTTTCTGACGAGCGGGACGCAATTCTCGGACGCCG  
AGGGGCTGGCGCTCCCGCAGGACGGCTCTATTACCTCTACTGTCTCGTCGGCTACCGGGGCCGGGCGCCCCCTG  
GCGGCGGGGACCCCAAGGGCCGCTCGGTCAAGCTGCGCAGCTCTCTGTACCGGGCGGGGGCGCCTACGGGCCGG  
GCACTCCCGAGCTGCTGCTCGAGGGCGCCGAGACGGTGACTCCAGTGCTGGACCCGGCCAGGAGACAAGGGTACG  
GGCCTCTCTGGTACACGAGCGTGGGGTTTCGGCGGGCTGGTGCAGCTCCGGAGGGGCGAGAGGGTGTACGTCAACA  
TCAGTCACCCCGATATGGTGGACTTCGCGAGAGGGGAAGACCTTCTTTGGGGCCGTGATGGTGGGGTGAGGGAATA  
TGAGTGCCTGGTCCGAGTGCCTGAATATTGGGGGCCGGACGCCAGGACCCCATGGCAGTGGGAAAAATGTAGG  
AGACTGTTTGAAATTGATTTTGAACCTGATGAAAAATAAGAATGAAAGCTTCAGTGCTGCCGATAAA

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**FIGURE 533**

MGALGLEGRGRLQGRGSLLLAVAGATSLVTILLAVPITVLAVLALVPDQGGLGFRSCQRRSQKQISAPGSQLP  
TS

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**FIGURE 534**

CCCAGAGCAGCGCTCGCCACCTCCCCCGGCTGGGCAGCGCTCGCCCGGGAGTCCAGCGGTCTCTGTGGAGC  
TGCCGCCATGGCCCCCGCGCGGGCGCGCGGCTGCCGGACCTCGGTCTCCCGCGCTGCTACTGTGCTGTGTCT  
CCGGCCGCCGCGCAGCGGGGCATCAGTGCCTCCCCCATGTCCGTGGAACACGCAGACATCTGGGTCAAGAG  
CTACAGCTTGTACTCCAGGGAGCGGTACATTTGTAACCTGGTTTCAAGCGTAAAGCCGGCACGTCCAGCCTGAC  
GGAGTGCCTGTTGAACAAGGCCACGAATGTCGCCCATCTGGACAACCCCCAGTCTCAAATGCATTAGAGACCTGC  
CCTGGTTACCAAAGGCCAGCGCCACCTCCACAGTAACGACGGCAGGGGTACCCCCACAGCCAGAGAGCCTCTC  
CCCTTCTGGAAGAGCCCGCAGCTTCATCTCCAGCTCAAACAACACAGCGGCCACAACAGCAGCTATTGTCCC  
GGGCTCCCAGCTGATGCCTTCAAATCACCTTCCACAGGAACACAGAGATAAGCAGTCATGAGTCTCCACGG  
CACCCCTCTCAGACAACAGCCAGAATGGGAACCTACAGCATCCGCTCCACCAGCCGCCAGGTGTGTATCC  
ACAGGGCCACAGCGACACCAGTGTGGCTATCTCCACGTCCACTGTCTGTGTGGCTGAGCGCTGTGTCTCT  
CCTGGCATGCTACCTCAAGTCAAGGCAAACTCCCCCGCTGGCCAGCGTTGAAATGGAAGCCATGGAGGCTCGCC  
GGTGACTTGGGGACCAGCAGCAGAGATGAAGACTTGGAAAACGTCTCTACCACCTATTGAAACTCGGGAAACC  
AGCCAGCTAAGTCCGGAGTGAAGGAGCCTCTCTGCTTTAGCTAAAGACGACTGAGAAGAGGTGCAAGGAAGCGG  
GCTCCAGGAGCAAGCTACCCAGGCCTCTCAGAAGTCCAGCAGGATCTCACGGACTGCCGGGTCCGGCGCTCCTG  
CGCGAGGGAGCAGGTTCTCCGCATTCCCATGGGCACCACCTGCCTGCTGCTGTGCTTGGACCCAGGGCCAGC  
TTCCAGGAGAGACCAAGGCTTCTGAGCAGGATTTTATTTCATTACAGTGTGAGTGCCTGGAATACATGTGG  
TAATGAAATAAAACCCCTGCCCGGAATCTTCCGTCCCTCATCTTAACCTTGCACTTACAGAGAAAAGTGACATAC  
CCAAAGCTCTCTGTCAATTACAAGGCTTCTCTGGCGTGGGAGACGTCTACAGGGAAGACACCAGCGTTTGGGCT  
TCTAACACCCTGTCTCCAGTGTCTGTCACACATGGACAGGGACCTGGGAAAGTGGGAGAGATGCTGAGCCCA  
GCGAATCCTCTCCATTGAAGGATTCAGGAAGAAGAAAACCTCAACTCAGTGCCATTTTACGAATATATGCGTTTAT  
ATTTTACTTCTGTCTATTATATCTATACATTATATATTATTGTATTTTGACATGTACCTTGTATAAACAA  
AATAAACATCTATTTTCAATATTTTAAATGCA



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**FIGURE 535**

MAPRRARGCRTLGLPALLLLLLLRPPATRGITCPPPMSEHADIWVKSYSLSRERYICNSGFKRKAGTSSLTEC  
VLNKATNVAHWTTPSLKCIRDPALVHQRFPAPPSTVTTAGVTPQPESLSPSGKEPAASSPSSNNTAATTAAIVPGS  
QLMPKSPSTGTTEISSHESHGTPSQTAKNWELTASASHQPPGVYPQGHSDTTVAISTSTVLLCGLSAVSLLA  
CYLKSQTPPLASVEMEAMEALPVTWGTSSRDELENCSHHL

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FIGURE 536

CTGAAGCTTGCATGCCTGCAGGTGCAGCCACGCTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCTTTCTT  
CCAGAAGGAGATTTAACCATAGTAGAAAGAATGGAGAACTATTAACCTGCCTTCTTCTGTGGGCTGTGATTTTCA  
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAAATTTTGGCAG  
AGGAAGACTTCTTCTCGGTCAACATACTTTGAGTTAGCTTAGGGAAGTGGAGGTTTCCATTGGAAATTCATAGC  
TTCTTCCAGGTATAGTGTCTGCCCCCACCCTCCAGTATCTCTGTATGCAGCATGAATGAAATGGCAAGTT  
TTCTGGCCTTCTCTCTGCTCACTTTTCTGTCTGCTCTCTTTTGTTCAGCTGCTCATGCTCTCACTCAGCTCAGT  
TCTTGTGCTTGGACCCTCTGGGCCCATCTCGGCATGCTGGGTGAAGACCGTGATCTGCCCTGTCACTGTTTCC  
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCAGCCCTAAGGCAAGGTGGTGAACGTGTATGCAG  
ATGGAAGGAAGTGGGAAGACAGGCAGAGTGCACCGTATCAGAGGGAGAACTTCGATTCTCGGGGATGGCATCACTG  
CAGGGAAGGCTGCTCTCCGAATACCAACGCTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCGAAGATG  
GTGACTTCTATGAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTACGTTGATGTGAAGG  
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCAAATACAGTGGAGCA  
ACAACAAGGGAGAGACATCCCCACTGTGGAAAGCACTTGTGTTGCAGACGGAGTGGGCCGTGTATGCAGTAGCAG  
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGGTGATCCTGTACCATCAGAAGTTCCTCTCGGCCCTGGAAA  
AGACAGCCAGCATTTTCCATCCGACGCCCTTCTTCAGGAGCGCCAGAGGTGGATCGCCGCCCTGGCAGCGACCC  
TGCTGTCTTGTGCTGCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAGACTCAGT  
TCAGAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAATGAAGCAAGAACCAAGCACAAAG  
TGAAGCTCTCGGAGGAACATCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTACGCCCTATAATG  
AATGGAAGAAAGGCCCTTCAAGCCTCGGGATGTGATTCTGGATCCAAAAACAGCAAAACCCCATCTCTCTGTTT  
CTGAGGACCAGAGGAGTGTGCAGCGTGCACAGGAGCCCGAGGATCTGCCAGACAAACCTGAGAGATTTAATGGC  
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGAGACATTACTGGGAGGTGGAGGTGAGGGGACAGGAAG  
AGTGGCATATAGGGGTGTGCAGTAAAGATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTCT  
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAATGAGCCAGAACCAACCTGAACTTCCATAACG  
CCCCAAGAAAGTGGGGTCTTCTCGGACTATGAGACTGGAGATATCTCAATTCACAACTGCTGGATGGATGCG  
ATATTCAACTTCTCTGGACGCTCTCTTCTCTGAGGCTCTATATCCTGTTTCAGAAATTTGACCTTGGAGCCCA  
CGGCCCTGAGTATTGTCTCAGCGTGAAGAAAGAGAGAGTTCTCCAACTTCTGACCGAGTGCTGATCTTCCCT  
AGAGACACCAAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAACCTTTTCTGCTTCTC  
CCTGCCAGCTCAGAGCTGAGGGCCTCCCCCTCCACAGCAACCAATCACAACCTATAAGCTACAAGCAGCCACTG  
AAGCACTTTACTGATACTCAATTCATTTATCATATGACAGTTGTTTGGATTCTGACCATCTTATTTCCCTTA  
TACAGATAAGGAAACTGGGGTGCAGAAAAGTGAATTGACTACAAGTAGACATGACTAGTTAACAACACAGCTGG  
GACTTAAACAGCAATAACTAATTTAATGGAGAACTTAAATGCTCTGAGTGCTGTGTTATGAGCTTTGGTGGAT  
GTCATCCTTTAATCTCGCAACACCTCTCGGGTAGTCTCATTTAGCAAGTATGGAAGTTGAGGCAGGGCAACA  
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTCAAGTTCAGTCCCCGGCCCTATGGC  
CGTTCTTTTCCACCTGTTTCTTCCCCATAGGAAGAACCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC  
TCCAGATGATCATGCGCCAGAGCCAGCCTTCTCTCAATCAAGGTTTCCAGGCAGAGCAATACCTAGAGATTT  
TCTGTGATATAGGAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGAATTTTTTTTTTTTAAAGATGGAGTC  
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGGCATCTCAGCTCCCTGCAACCTCCACCTCTGGGTCTCAACAA  
TTCTCTGCCCTCAGCCTCGGAGTACTGGGAATATAGGTGCACGCCACCACACCAACAAATTTTGTACTTTTA  
GTACAGTATGAGGTTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGAACCTCATGATCCACCCACCTCGGTCTC  
CCAAAGCTGTGGGATTCAGGCTTGGGCCACCGGGTGACCGGCTTACAGGGATATTTTAACTCCGTTATGGACT  
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTTGGTGGATGTTAAACCAATTTCTTTCAACTGCTGCC  
TGCTAGGGAAGAACTACTCCTCATTATCATATTATTTGCTCTCCACTGTATCCCCCTACCTGGCATGTGCT  
TGTCAGTCTTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAA  
AA

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**FIGURE 537**

MKMASFLAFLLLNFRVCLLLQLLMPHSAQFSVLGSPGPIILAMVGEDADLPCHLFFPTMSAETMELKWWSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDIFYEKALVELKVAALGSDL  
HVDVKGYKGGIHLRCRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAAASVIMRGSSGEGVSCITIRSS  
LLGLEKTASISIAADPFFRSQRWIAALARTLPVLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ  
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLDPNP  
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFTWMTGLTDGNKYRILTEPRIN  
LKLPPKPKKVGFLDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILTEPTALSICPA

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FIGURE 538

GGCACGAGGGGAGTGGAAAGTTCTCCGGCAGCCCTGAGATCTCAAGAGTGACATTTGTGAGACCAGCTAAATTGA  
TTAAAAATTCCTTTGGAATCAGCTTTGCTAGTATCATACCTGTGCCAGATTTTCATCATGGGAAACAGCTGTTACAA  
CATAGTAGCCACTCTGTTGCTGGTCCCTCAACTTTGAGAGGACAAGATCATTGCAGGATCCCTGTAGTAAGTCCCG  
AGCTGGTACATTTCTGTGATAATAACAGGAATCAGATTTGCAGTCCCTGTCCCTCCAAATAGTTTCTCCAGCGCAGG  
TGGACAAAGGACCTGTGACATATGCAGGCAGTGTAAAGGTGTTTTTCAGGACCAGGAAGGAGTGTTCCTCCACCAG  
CAATGCAGAGTGTGACTGCCTCCAGGGTTTCACTGCCTGGGGCAGGATGCAGCATGTGTGAACAGGATTGTAA  
ACAAGGTCAAGAAGTGCACAAAAAAGTTGTAAAGACTGTTGCTTTGGGACATTTAACGCATCAGAAACGTGGCAT  
CTGTGCACCTGGACAAACTGTTCTTTGGATGGAAAGTCTGTGCTTGTGAATGGGACGAAGGAGAGGGACGTGGT  
CTGTGGACCATCTCCAGCCGACCTCTCTCCGGGAGCATCCTCTGTGACCCCGCCTGCCCTGCGAGAGGCCAGG  
ACACTCTCCGCAGATCATCTCCTTTCTTTGCGCTGACGTCGACTGCGTTGCTCTTCCTGCTGTTCTTCCTCAC  
GCTCCGTTTCTCTGTGTTAAACGGGGCAGAAAGAACTCCTGTATATATTCAAACACCACTTTATGAGACCACT  
ACAACTACTCAAGAGGAAGATGGCTGTAGCTGCCGATTTCCAGAAGAAGAAGAGGAGGATGTGAACCTGTGAAA  
TGGAAAGTCAATAGGGCTGTTGGGACTTTCTTGAAAGAAGCAAGGAAATATGAGTCATCCGCTATCACAGCTTTC  
AAAAGCAAGAACACCATCCTACATAATACCAGGATCCCCAACACAGTCTTTTCTAAATGCCAATGAGTTG  
GCCTTTAAAAATGCACCACTTTTTTTTTTTTTTTTGACAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGC  
ACCACCATGGCTCTCTGCAGCCTTGACCTCTGGGAGCTCAAGTGATCCTCCTGCCTCAGTCTCCTGAGTAGCTGG  
AACTACAAGGAAGGGCCACCACCTGACTAACTTTTTTGTTTTTTGTTTGGTAAAGATGGCATTTCACCATGTT  
GTACAGGCTGGTCTCAAACCTCTAGGTTCACTTTGGCCTCCCAAAGTGCTGGGATTACAGACATGAACCTGCCAGG  
CCCGGCCAAAAATATGCACCACTTTTAACAGAACAGACAGATGAGGACAGAGCTGGTGATAAAAAAAAAAAAAA  
AAAGCATTTTTAGATACCACTTAACAGGTTTGAGCTAGTTTTTTTGAAATCCAAAGAAAAATTATAGTTTAAATT  
CAATTACATAGTCCAGTGGTCCAACATAAATTATAATCAAAATCAATGCAGGTTTGTGTTTTGGTGCTAATATGA  
CATATGACAATAAGCCACGAGGTGCAGTAAGTACCCGACTAAAGTTTCCGTGGGTTCTGTCATGTAACACGACAT  
GCTCCACCGTCAGGGGGGAGTATGAGCAGAGTGCCTGAGTTTAGGGTCAAGGACAAAAACCTCAGGCTGTGGAG  
AAGTTTTTGGAAAGAGTTCAAGTGTCTGTATATCCTATGGTCTTCTCCACTCTCACACCTTCTGCCCTTTGTCTGTG  
TCCCTTTTAAGCCAGGTTACATTTCAAAATTCCTTAACTTTTAACATAATATTTTATACCAAGGCCAATAAATGA  
ACTGCATATGAAA

**FIGURE 539**

MGNSCYNIVATLLLVLFNFERIRSLQDPCSNCPAGTFCDNNRNQICSPCPPNSFSSAGGORTCDICRQCKGVFRIR  
KECSSTSNAECDCTPGFHCLGAGCSMCEQDCKQGQELTKKGCKDCCFGTFNDQKRGICRPWTNCSLDGKSVLVNG  
TKERDVVCGPSPADLSPGASSVTPPAPAREPGHSPQIIISFFLALTSTALLFLFFLTLRFSVVKRGRKKLLYIFK  
QPFMRPVQTTQEEDGCSCRFPEEEEGGCEL

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**FIGURE 540A**

ACGGCTGCGAGAAGACGACAGAAAGGGGAGAGGTGAATATTATTGAATGAAAAATGGCTGACAGAAAGTGGGAAGATT  
ATTCCAGGACAAAGTGATATTGAGGTGGAATATGATTATGAATATGAAGCAAGGACAGAAAGATTGTGATAAAA  
CAAGGGGAGAGTACATCTTGGTGAAAAAGACCAATGATGACTGGTGCGCAAGTCAAGCCAGATGAAAACTCCAAA  
GCGTTTTATTGTGCCACCCAGTATGTGAGGAGGTCACGCGCAAGCTCTCATGCCACCTGTTAAAGCAGGTAGCT  
GGTCTGCCAAATAACTCCACGAAAATAATGCAGAGTTTGCACTCTTCAGAGATCAACAGAAAATGTGAACAATTTG  
CCTGAGCTTTCAAGTTTCGGAAGGCCATCGTCATCTGTTCAAGGAACAGGCTCTTATTCGTGATGCCAATCAGAAT  
TTTGGACCCAGTTATAATCAAGGTCAGACTGTCAACCTAAGCCTGGACCTGACCCATAAATCAAGGAAAGTTTAAAC  
AATGACTCACATTTCTCTAAAGTTTCCAGCCAGAATAGGACACGCTCATTGGTTCATTTCCCGGTCCAGAGTTTC  
TTGGATGTAGAGAAAAGTACTGCTCTCCAGGAACAATCTTGTGATTCCGAGGAGAGGCTCTGAAGAATACAT  
CAAGATTCTGAATCTGGTGATGAACATTAGCAGCAGCTCCACTGAACAGATAAGGCGAACACACCTCCAAATCAA  
GGAAGGCCAGATTCTCCTGTCTATGCTAACCTTCAAGAACTGAAAATATCCCGATCTGCTCTTCCCCACTTCCT  
GGGAGCCCGGCAATTGAGATTAATGGAGAAATGGGAACTCATAAAGACAGCTCAGGCGGCTGCTATTACTATAAC  
AGAGGGACACAGGAAGAAGTCTGGAACCTCTCGTTGGACCCGGATGCAAGCATCAGCAAAGGAGATTTCCAA  
AATCCAGGGGATCAAGAGTGGCTCAAGCATGTTGATGATCAAGGTAGACAATATTACTACAGTGCAGCGGATCT  
CGGTCAAGATTGGGAATTGCCAAAGTATAATGCTTCATCCAGCAGCAAGAGAATATTAAAGATTAGGAGCGCTG  
GACAGGCGGCTGCAAGAACAATAGTATTAAACAAAGTGGAGACATAGCACCATTGTATTGGACACTAATGATAAG  
GAATCTCCAACCTGCCTCAAAACCTCGCTTCTGAAAATGAGTCTTCTCCCTCCTCACCAGGACCAAGATACA  
GATCAAGAGAATAATGGATTATTAATGTAAACAAAATTTGCTGAAAATGGGAAAAGGTTGAAAAGAACTGGTGT  
TCTTCTTGGGCGGTGTTGAGGTTTCACTTTTACTTTTACAAAACCTCAAGGAAGTAGCAAGTTGGTTTGGC  
AGTAATCAGTCCAAACAGAGTTTCAAGTGGACCTCAAGGGGGCAACAATTGAGATGGCTTCAAAGGATAAAATCC  
AGCAAAAAGAAATGTATTTGAGCTGAAAACCTCGTCAAGGAACAGAACTGCTAATCTCAGTCTGACAATGACATGTT  
ATTAATGATTGGTTTAAAGTCTTAGTAGTACAATCAATAATCAGGCAGTAGAAAATGATGAAGGAATTGAAGAG  
TTAAGATCCGGATTACCAGGAATGAAAAGCATGATAAGAAAAGGAACAAAAGGATCCCAAAAGCTTCGTCTCC  
TTAAAGTATCTAGCATAGATTTCTCAGAACAGAAAAAACCAAGAAAACCTTAAAGAAAGTTTCTACACAGCG  
CCCCTTTGCAAGCTGTTCTGTAAGAAAGGTTATATAAGATCAGGTATTGGATCCAATCTCGCTAATCTGTGT  
CAGAGAGAGAATGGCACAGTACCAAGTTTGTAAGTTATGTATTGAACATGTTGAAGAACATGGTTTGGATATT  
GATGGGATATACAGAGTAAGTGGCAACCTCGCAGTGATCCAGAAAACCTAAGGTTTGCAGTCAATCATGATGAGAAA  
TTGAGCTTGAATGACAGTAATAATGGGAAGATATTCATGTCATTACTGGAGCCCTCAAAATGTTTTCGAGAATTA  
CCAGAACCTCTTTTACATTTAATCATTTTAAATGATTTTGTAAATGAACATAAGCAAGAACCAAGCCGAGCT  
GCTGCTGTTAAGGACCTAATCAGACAGTTGCCAAAGCCAAACCAAGACACAATGCAGATTCTTTCCGACATCTC  
AGAAGAGTTTATAGAAAATGGGAGAGAAAAATCGAATGACCTATCAGAGATATGCAATTTGTTTGGTCCCACTCTA  
TTAAACCAGGAAAAAGACAGTGGTAAATATAGCAGTTCTACTGTGTACAGACAGATCAGATTGTAGAAATTAATCTT  
CTGGAACCTGAGTTCCATCTTCGACGCTTGATTTCTACTGAAGACAACCTGTGGAATAGAAGCTGGATTCCATCAG  
ATTTCAAATGTTTATACCAATGATTTTATTTTTTGGACCAAGCAGTGACTCTTTGATTTTGCACTTTTTTTTT  
GAGGATCAGAGGGAAGGAGAGTCGAGATGTGTGTAGGCCCTCATTTCTGCTGCTTTGTTCGCTTTGTGCAAGTGATA  
TAAGTGGGTGAATATGAATTCATTTATCCTGAATGTTGCAATTTATCTCTGAATTTAGTAAAAATCAAA  
ACTTAAAAATCTAACCGTCATATACACTGGATAATTGGTAAGAAAACCTGTATTTTTTCTCCCTGAAATGGAT  
AATGACTTCTTCTCAGATTTCATGACTTGATAGAACAACTTTTCAGTTATGTTGCAAGGCTCTGGGCATT  
TTAAACAAAATGAAGTATATCCATTTTGAACCTGTGATTTCTTTTTCGGGGTTTCTGCATGACGTGGAGCTGT  
TAAGTGCCAAAATTCATTATACCCCAAAAATAACCCCTTGATGAAGGCTTGCTGCTTTTACTGTGTACACAGC  
ATCCCTTACTGGATATCTTAGTTGCTGTTGGTGGACGACACTAATATTACTTAAACACTGTGATATACTGGAGT  
TTTAGTTAGCGGAAGTGAGTTCAGGCGGATTTAGGGCTGCTTGTCTATACCTGAATTTAGCTCAACAATCCTAAT  
ATATCTAGTACCATACTGAGTTATTTGATGACCTGTGGAACACACATTTTATGTAAATATAGGCTAAAG  
ACTTAATGTCTTTAGCTTGTGATATAAATGTGTTGTATAGTCTCAGAGTACATCTCAACCTACATTCTAAT  
CATGTTATTGTGAATCTTTCTGTGAATATTAGGTTTCCCTCAGAAAATGTCCGCTATTTTGGGAAAGTTAACTG  
TGTCGACTTTTAGATAATTAACCTAATCTACAGGCAAACTCAGTGAATGAGATGGTACTGGAAAAATCTGAATA  
GACTTGCTAAATGGCACATGCACTACAAGGAGAACCTTTTGGGTATTATTAATATGACAGAAAACATTAGAAAAA  
ATTTATTACAGAATTCATATCCAGTATGAATGTGGAACCCACCTGTAATTAGATGGATGTTGGATGGAAAA

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**FIGURE 540B**

TGACATTGCTAAATTGAGAATTTCTTTTACCTACTAATGTAGATTGCTTTGTATAATAAAACACAGGGTTTGG  
AAGGTTTTGTTACAGGGAGCATGGTCTGTTGAAGATTTTTAAAATGTATTTTCTAGATTAACTTCTGTACATGA  
AATGTCTAATAAACTCTAAGAGGCTTAGAGATTTTCCATTGGAAATGTGCATTTGGTTTCTAAATTTTTTGT  
TTTTTCATTTACTGGCATACTGTTATACCTCATTTTTAAAAATCAACTGAATCCAATATTTCTGTGGCAATAA  
CACTTTCCCTCATTTTCATACCTTTTCTCCTCTCTCCATGCCAACATTTCTCCACCCACAACGTACACTTTTTATT  
TCTCCATCAATATTTGAAAGCGAGTGATTGTGACCAGGATTTTTTTTCTTAGGGTTGCATTTATAATTTACAG  
ATTGCCTTCCTTGGGAACAAGTATTTTTTGTATGATCTGTCTAAAAACCTCTCACCTGAATTTTGTGGTAGAAA  
GTCGTATTTGTTGTGTGAGCGTGTTAAATTGATAACAAACCAAACTACTTGATAGCTAAAGCAGATGTTTCG  
GGTGGGGAGAAAAAGCCCTAAATCAGAATGTTTATATTTGCCTAAAGTTGTCCTTAATAATACAATATGCTTTAG  
ATCTTGCTTATTTAGTGATTGTATACCAGGAAAAACAATTAGACTCAAATCAGTGATGTTCTTGTCTTGGTGTTT  
ATGAACATATATCAAAGATTAATAATTGTCCTGTGTTTCTTGTTTCAAGGTACGTGTGTGTGTGTGTGTGTGTG  
TGTGTGTGTGTGTGTGTGAAGTCTTAAATGTTTATTAGTCTACAGCTAATCAGTTTATTGTAATATTGTATGTA  
CAGTGAGATTAATGCTTTCGTTTTTCATCCTTTGTGAATTAAAAATTCTCACTTGTTTTGTAATAACAAAGCTAG  
TAATATTTTCTGTCTTGACAGCTTGTTTTATAGTAGAAAAATATATTTAAAGCTGAAATAAATTATCAGTGGA  
TTTTAAAAAAGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 541**

MKMADRSGLIPGOVYIEVEYDYEYEAADRKIVIKQGERYILVKKTNDDWWQVKPDENSKAFYVPAQYVREVTRK  
ALMPVVKQVAGLPNNSTKIMQSLHLQRSTENVNKLPELSSFGKPSSSVQGTGLIRDANQNFGPSYNQGQTVNLSL  
DLTHNNGKFNNDSHPKVSSQNRTSRFGHFGPEFLDVEKTSFSQEQSCDSAGEGSERIHQDSESGDELSSSSSTE  
QIRATTPPNQGRPDSPVYANLQELKISQALPPLPGSPAQINGEWETHKDSGRCYYNRRGTQERTWKPPRWTR  
DASISKGDFQNPQDQEWLKHVDDQGRQYYSADGSRSEWELPKYNASSQQOREI IKSRSLDRRLQEPVLTWKRH  
STIVLDTNDKESPTASKPCFPENESSPPKHKQDIDQEKYGLLNVTKIAENGKKVRKNWLSWAVLQGSLLFTK  
TQGSSTSWFGSNQSKPEFTVDLKGATIEMASKDKSSKKNVFELKTRQGTELLIQSDNDTVINDWFKVLSSTINNQ  
AVETDEGIEEEEIPDSPGLEKHKDEKEQKDPKKLRSFKVSSIDSSEQKTKKNLKKFLTRRPTLQAVREKGYIKDQ  
VFGSNLANLCQRENGTVPKFVKLCIEHVEEHGLDIDGIYRVSGNLAVIQKLRFAVNHDEKLDLNSKWEDIHVIT  
GALKMFFRELPEPLFTFNHFNDFVNAIKQEP RPVAAVKDLIRQLPKPNQDTMQILFRHLRRVIEENKRNMTYQ  
STAI VFGPTLLKPEKETGNIAVHTVYQNI VELLLELSSIFGR



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**FIGURE 542**

ATGACCATGGAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCCTTGACAGAGAGCAAGTCTGCTCAT  
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCACCAGAAGA  
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA  
CAGCCATGGGTTATTAGTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA  
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTACGAAGACCCCTCTTATAGGAAAACTCTG  
AATGAACCTGTCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGAACACCCACT  
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT  
GGAACAATCCAGATTCTTAACCCAGGATCTGATGGTGTTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA  
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTTGCCCCA  
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG  
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC  
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGACGAAGAAGAAGAATATGTCAAA  
TGCTTTGAAAAATCGTGTGGCTGTGCTTGAAAAACCAAAACAAGACTCTCATTGAGGAACCTCAAGGCCCTCAAAGAT  
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGGACCTTGTCTTACTCTAATCAAGGCAGGAGATGCAGCA  
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCCTTAAGAATCCAGTTTGATTAGTGTTG  
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCAGCTTACTTTGATCTGTT  
TGCTCAATAGCATGCAAAAAATGCTTTGTTGCCCTTTGCTTCTGCTTTTTTCAGGGAAGCTGCCAAGAATGTC  
GACGTGAAAGAAAGAATATGTAAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA  
TAGAGGAACCTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAACTGAT  
TACAGA

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**FIGURE 543**

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCSSELRSGETRRGSPAVTLVQLPSGQTIHVQGVQITP  
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKILNELSSDVPGVPKIEEERSEEEGTPP  
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALTMNSGAPPPGATIVQYAAQSADGTQOFFVVP  
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPGSLHSPQQLAEEATRKRRELRMKNREAAARECRRKKKEYVK  
CLENRVAVLENQNKTLIEELKALKDLYCHKVE

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**FIGURE 544**

GAATTCGGCCAAAGAGGCCTAIGCTTCTCTGAAGACTTGCAGCAAGGCTTGCTGAGGCTCACAGAAGATAGCCCC  
AGTGTTTTGGAGTGGTTTTGAATGTGATTCTGAGATCAGACTGACTGAGCTGGAATCCTGGCTTTATATCTTACC  
AGCTACACAACCTTGGAGTCTTAGAAATTTTTCTTTTCAATAAGCAGTCATCCTTACTTTCCTCAAGATGACA  
AACAGTTCGTCTCTCTGCCAGTTTATAAAGATCTGGAGCCATTACGTATTTTTTTATTAGTTTTCCCTTGT  
GGAATTATTGGAAGTGTTTTTGCAACCTGGGCTTTATACAGAAGAATACGAATCACAGGTGTGTGAGCATCTAC  
TTAATTAATTTGCTTACAGCCGATTTCCCTGCTTACTCTGGCATTACCAAGTAAATTTGTTGTTGACTTGGGTGTG  
GCACCTTGGAAGCTGAAGATATTCCACTGCCAAGTAACAGCCTGCCTCATCTATATCAATATGTATTTATCAATT  
ATCTTCTTAGCATTTGTCAGCATTGACCGCTGTCTTCAGCTGACACACAGCTGCAAGATCTACCGAATACAAGAA  
CCCGGATTTGCCAAAATGATATCAACCGTTGTGTGGCTAATGGTCCTTCTTATAATGGTGCCAAATATGATGATT  
CCCATCAAAGACATCAAGGAAAAGTCAAATGTGGGTTGTATGGAGTTAAAAAGGAATTTGGAAGAAATTTGGCAT  
TTGCTGACAAATTCATATGTGTAGCAATATTTTAAATTTCTCAGCCATCATTTTAAATCCAATTTGCCCTTGTA  
ATTCGACAGCTCTACAGAAACAAGATAATGAAAATTACCCAAATGTGAAAAAGGCTCTCATCAACATACITTTA  
GTGACCACGGGCTACATCATATGCTTTGTCTCTTACCACATTGTCCGAATCCCGTATACCTTCAGCCAGACAGAA  
GTCATAACTGATTGCTCAACCAGGATTTCACTCTCAAAGCCAAAGAGGCTACACTGCTCCTGGCTGTGTGCAAC  
CTGTGCTTTGATCCTATCCTGTACTATCACCTCTCAAAGCATTCCGCTCAAAGGTCACAGACTTTTGCTCA  
CCTAAAGAGACCAAGGCTCAGAAAGAAAAATTAAGATGTGAAAATAATGCAATAAAGACAGGATTTTTTGCTCA  
CCAATTCTGGCCTTACTGGACCATAAAGTTAATTATAGCTTTGAAAGATAAAAAAAAAAAAAAGCGGCCG

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**FIGURE 545**

MTNSSFFCPVYKDLEPFTYFFYLVLVGIIGSCFATWAFIQKNTNHRCSVSIYLINLLTADFLLLTALPVKIVVDL  
GVAPWKLKIFHCQVTACLIYINMYLSIIFLAFVSIDRCLQLTHSCKIYRIQEPGFQAKMISTVVWLMVLLIMVPM  
MIPKDIKEKSNVGCMEFKKEFGRNWHLTNFICVAIFLNFSAILISNCLVIRQLYRNKDNENYPNVKKALINI  
LLVITGYIICFVPYHIVRIPYTLSTQTEVITDCSTRISLQKAKEATLLAVSNLCFDPILYYHLSKAFRSKVTETF  
ASPKETKAQKEKLRCECNA

## FIGURE 546

GAATTCGGCAGGAGTCAGGGAAGCAGCCCCGGCGCCAGCAGGGAGCTCAGGACAGAGCAGGCTCCCTGGGAAGC  
CTCCGGGTGATAGGGGTGTTCAGCTGCGGCGCTCTGGGGTTCAGAGGGGGATCTTGAATGAACAAATGAATGA  
ACTGCTTTCTGGGCAAAACAGCCACAGCCAGAGGAGCCTGTGATTGGCAGAAAGAACCCAGGGTGTGCAAGTCTCC  
CCAAACAGCCTCGAGTGGCCTGCAGTACAGGGAAACCTCAGGAAGACCTTCGGGCAGAGACCAGAGGGAAGCCC  
ATCTCTCCAGCAGAAGCTGCTTGGATTTTTCTACCAGGAGGCTCAGGGCTCTGCAACAATGATAGCAGAAGCTGAT  
GGCATCTAGAGATCTAGGCTGGGACTAGCACAGCATCACTTCTACCCTTTCTGTTGGTCACAGCAACTCACCAT  
GCCAGTGCAGATTCAAGGGGAGGAGAAATAGAGTCCACTTCTTGATGGGAGGCGTGACATAGAAATGGAGGATGAA  
GATTACAACACTTCCATCAGTTACGGTGATGAATACCTGATTATTAGACTCCATTGTGGTTTTGGAGGACTTA  
TCCCCCTTGGAGGCCAGGGTGACCAGGATCTTCTGGTGGTGGTCTACAGCATCGTCTGCTTCTCCGGGATTCTG  
GGCAATGGTCTGGTGATCATCATTGCCACCTTCAAGATGAAGAAGACAGTGAACATGGTCTGGTTCTTCAACCTG  
GCAGTGGCAGATTCTCTGTCAACGCTTCTCTCCCAATCCATATCACCTATGCCCCATGGACTACCACTGGGTT  
TTCGGGACAGCCATGTGCAAGATCAGCAACTTCTTCTCATCCACAACATGTTACCAGCGTCTTCTGCTGACC  
ATCATCAGCTCTGACCCGTGCATCTCTGTGCTCCTCCCTGTCTGGTCCCAGAACCCAGCGAGCGTTCCGCTGGCT  
TACATGGCCTGCATGGTCATCTGGGTCTGGCTTCTTCTTGAGTTCCCCATCTCTCGTCTTCCGGGACACAGCC  
AACCTGCATGGGAAAAATATCCTGCTTCAACAACCTTCAAGCCTGTCCACACTGGGTCTTCTCTGTGGCCACTCAC  
TCCCAATGGACCCCTGTGGGGTATAGCCGGCACATGGTGGTGACTGTCACCCGCTTCTCTGTGGCTTCTGGTC  
CCAGTCTCATCATCACAGCTTGTACCTCACCATCGTGTGCAAACTGCAGCGCAACCGCTTGGCCAAGACCAAG  
AAGCCCTTCAAGATTATTGTGACCATCATCATTACCTTCTTCTCTGCTGGTGGCCCTACCACACACTCAACCTC  
CTAGAGCTCCACCACACTGCCATGCTGGCTCTGTCTTACGCTGGGTTGCCCCGGCCACTGCCCTTGCCATT  
GCCAACAGCTGCATGAACCCCATCTGTATGTTTTATGGGTGAGGACTTCAAGAAGTTCAAGGTGGCCCTCTTC  
TCTCGCCTGGTCAATGCTCTAAGTGAAGATACAGGCCACTTCTCTACCCAGCCATAGAAGCTTTACCAAGATG  
TCATCAATGAATGAGAGGACTTCTATGAATGAGAGGGAGACCGGCATGCTTTGATCTCTACTGTGGAACCCCTCA  
ATGGACTCTCTCAACCCAGGGACACCAAGGATATGCTTCTGAAGATCAAGGCAAGAACCTCTTTAGCATCCAC  
CAATTTTCACTGCATTTTGCATGGGATGAACAGTGTTTTATGCTGGGAATCTAGGGCCTGGAACCCCTTCTTCT  
AGTGGACAGAACATGCTGTGTTCCATACAGCCTTGGACTAGCAATTTATGCTTCTTGGGAGGCCAGCCTTGACTG  
ACTCAAAGCAAAAAGGAAGAATTC

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**FIGURE 547**

MEDEDYNTSISYGDEYPDYLDLSIVVLEDLSPLEARVTRIFLVVVYSIVCFLGILGNGLVIIATFKMKKTVMVMW  
FLNLAVADFLFNVFLPIHITYAAMDYHWVFGTAMCKISNFLLIHNMFTSVFLLTIISSDRCISVLLPVMQNHRS  
VRLAYMACMVIWVLAFLLSSPSLVFRDTANLHGKISCFNNFSLSTPGSSSWPHTSQMDPVGYSRHMVVTVTRFLC  
GFLVPVLIITACYLTIVCKLQRNRLAKTKKPKIIVTIIITFFLCWCPYHTLNLELHHTAMPGSVFSGLPLAT  
ALAIANS CMNPILYVFMQDFKKFKVALFSRLVNALSED TGHSYP SHRSFTKMSSMNERTSMNERETGML

[illegible]

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**FIGURE 549**

MDFSRNLYDIGEQDSEDLASLKFSLDYIPQRKQEPKDALMLFORLQEKRMLEESNLSFLKELLFRINRLDLL  
ITYLNTRKEEMERELQTPGRAQISAYRFHFCRMSWAEANSQCQTQSVPFWRRVDHLLIRVMLYQISEEVSRSSEL  
SFKFLQEEISKCKLDDDMNLLDIFIEMEKRVILGEGKLDILKRVCQAQINKSLLKIINDYEEFSKGEELCGVMTI  
SDSPREQDSESQTLDKVYQMKSKPRGYCLIIINNHNFAKAREKVPKLSIRDNRNGTHLDAGALTTFEELHFEIKP  
HDDCTVEQIYEILKIYQLMDHSNMDCFICCIILSHGDKGIIYGTDGQEAPIYELTSQFTGLKCPSLAGKPKVFFIQ  
ACQGDNYQKGIPVETDSEEQFYLEMDLSSPQTRYIPDEADFLGMATVNNNCVSYRNPAGETWYIQSLCQSLRERC  
PRGDDILITILEVNYEVS NKDDKKNMGKQMPQPTFTLRKKLVFSPD



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**FIGURE 550**

GTTTTTCCCTTCTGAGCAATGAGCTTACCATCTTTATCCTGAGACTGGCCATTACATCCTGACATTTCCCT  
TGTACCTGCTGAACCTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCTACTTCTTGGTGAGGTTCA  
CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGGGGCCCT  
CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG  
TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGTATCAAGAGCATTGCAGAGAACCACACCTGCAGT  
TTGAGCGCTTTGTGGTAGCTGCCGGGAGAACATGCACCAAGTGGCTGATGGCTCTGIGGATGTGGTGTCTGCA  
CCCTGGTGTCTGTCTCTGTGAAGAACAGGAGCGGATTCTCCGAGGTTGTGCAGAGTGTCTGAGACCGGGAGGGG  
CTTTCTATTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAAATTACTTCTGGCAACAAGTCTGGATCCTG  
CCTGGCACCTTCTGTTTGTGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTA  
AGCTGAAGCTGCAGCACATCCAGGCCCACTGTCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA  
AATAGTGTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAAATGCTAA  
GTGGGAGAAGAGAAACCTTTTTTTGGGGGGCGGTTTTTTTGGTTTGTGTGGTTTTTTTTTTTTTTTGGCAA  
GACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAGAGTAGAGACAGGGAGACAGGGTCTCACTGTGTGCTTAG  
GCCGGTCTTGAACCTCTGGGCTCAAGTGATTCTCCACCTTGACCTCTAAATTTGTGGGATTACAGGTGTGAGA  
CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTGTATTCTTAGCGTCACTGG  
TCTGGCTTTCAGAATTAACATACAAGTTGCCACACCTAGTCTGCCAGCTTTATGTCTTTTATCCAGTATTC  
CACCAGTTTGTCTCTGCATTCCAGTTCTCAAGTCTTAAGATAAAGATTGTACTTGACAGTTTAGTATATCC  
ATAAACTATTGGAGTGTTAAGGTTCTTGGGTTCAATTTCTTAATACCTTGTGAATATTGTAGATTGTAGG  
CAATGAAAAAGTCTACTAAATAGGAAAAACCTTGAATAATTAGGTATCCTAGGTAAAGGCCCTTAAACATCAAGC  
AATCTGTGAGTCTGTAAAGAAATAAATTTTTTGGATTATTCTTATCTAATTCACCCCTGTTGGAAGATGATT  
TCTTTGTCTTTGCAACTATGGAAGCTGTGAAAATCATCAAGTGCCTCTGAAAGCGAGTGTAGGTTGGTTAG  
AGGGTTTAATATTTCTGCAATGGTTGTAGGAATTTAATAAATGTAGTATATTTCTGAGATGATTTGTAAA  
AGTACTATTTTAAATATCAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

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**FIGURE 551**

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFPYFLVRFTVIYNEQMASKKRELFNSNLQEFAGPSGKLSLL  
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVVCTLVLCV  
KNQERILREVCRVLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASFSLKLQHI  
QAPLSWELVRPHIYGAVK

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**FIGURE 552**

GGGCAACGGAGGGGAAATAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCGAGACCTCGGCGCCGACA  
TCGCGACAGCGAAGCGCTTTTGACGCCAGGAAGTCCCTCTATGTGCTGCTGAGCCGGTCTTGGACGCGACGAG  
CCCGCCCTCGGTCTTCGGAGCAGAATTCGCAAAAACGGAAGGACTGGAAATGCGCAGACCATATGATGGCAATGAA  
CCACGGGCGCTTCCCGACGGCACCAATGGGCTGCACCATCACCCTGCCACCCGATGGGCAATGGGGCAGTTCCC  
GAGCCCCATCACCACAGCAGCAGCAGCCCCAGCAGCCCTTCAACGCCCTAATGGGCGAGCACATACACTACGG  
CGCGGGCAACATGAATGCCAGAGCGGCATCAGGCATGCGATGGGCGCGGGGACTGTGAACGGAGGGCACCCCC  
GAGCGCGCTGGCCCCCGCGCCAGGTTTAACTCCAGTTTCATGGGTCCCCGGTGCCAGCCAGGGAGGGCTC  
CCTGCCGGCCAGCATGCAGCTGCAGAGCTCAACAACCCAGTATTTCACCATCACCCCTACCCCCACAACCACTA  
CATGCCGGATTGCACTCTGCTGCAGGCCACCATGATGAACGGGACAAACAGCACTTCCGAGATTGCAACCCCAA  
GCACAGCGCGCGCAGCAGCAGCCCCCGCGGCTCGGGCGGCAGCAGCAGCCCCGGCGCTCTGGCAGCAGCTCGGG  
CGGCGGCGCGGCGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGCAACATGCCCGCTCCGTGGCCCCACGTCCC  
CGCTGCAATGCTGCCGCCAATGTCATAGACACTGATTTTCATCGACGAGGAAGTCTTATGTCCTTGGTGATAGA  
AATGGGTTTGGACCGCATCAAGGAGCTGCCCGAAGTCTGGCTGGGGCAAAACAGTTTGATTTTATGACGGACTT  
CGTGTGCAAAACAGCAGCCAGCAGAGTGAGCTGTGCACTCGATCGAAACCCCGCGCAAGAAATCAAACCCCAA  
CTTCTTCGGCGTAATTAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGATCTTGAAAGGTTTGAGA  
ACTTGAAACAAAGTAACTATAAATTTGTACAAATGGTTTTAAAAAAATGCTGCCACTTTTTTTCCTGTTT  
TTGTTTCGTTTTGTAGCCTTGACATTACCCACCTCCCTTATGTAGTTGAAATATCTAGCTAACTTGGTCTTTT  
TCGTTGTTTGTTTTTACTCCTTTCCCTCACTTTTCCAGTGCTCAACTGTTAGATATTAACTTTGGCAAACCTGCT  
TAATCTTGTGGATTTGTAGATGGTTTCAAATGACTGAATGCATTGAGATTACGAGTGAAAGGAAAAAATTGCA  
TTAGTTGGTTGCATGAACCTCGAAGGGCAGATATTACGCAAACTGCCATCTCGCTTCATTTTTTAACTATG  
CATTTGAGTACAGACTAATTTTAAATATGCTAACTGGAAGATTAAACAGATGTGGCCAACTGTTCTGGAT  
CAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCCCCGCCGCCCCCCACCCCATATGTACAGATGA  
TAATAGGGTGTGGAATGTCGTCAGTGGCAACATTTACAGATTTTATTTTGTGTTCTGTCCTCAACATTTTTGA  
CACTGTGCTAATAGTTATATTAGTACATGAAAAGATACTACTGTGTGAAAGCTTTTTAGGAAATTTTGACAGT  
ATTTTGTACAAAACATTTTTTGAAAAATACTTGTAAATTTATCTATTTTAAATTTGCCAATGTCAATAAAAA  
GTTAAGAAAAA

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**FIGURE 553**

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQPQHAFNALMGEH IHYGAGNMNATSGIRHAMGP  
GTVNGGHPPSALAPAAARFNNSQFMGPPVASQGGSLPASMQLQKLNNQYFNHHYPYFNHYMPDLHPAAGHQMNGTN  
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE  
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

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**FIGURE 554**

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA  
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCCTCTCCAGTCCGCCGAGGGCGCACCCAGCCGGCCGTCT  
CGCCCGCCGGCCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAGATCGGTGAACATATGCCTGGGCAG  
GGCGAAGCCAGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCCGTGACGTGCAAAATCGGTCTGCCGACCTGGGTATA  
GGGGCGGGCTCCAGGCGAGGCGGTGCGAGCTCTGAAAACCTGCGCGCGCGCTCGCGCCACTGCGCCCGGAGCGA  
TGAAGATGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCGCGACCGGCACCA  
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCCTGGCTGATCCGG  
ATCAGTATAAATTTTCAAGTCTGAACTGGGAGGTGACTTTGAGTTTCATGGATGATGCCAACATGTGCAATTGCCA  
TTGCGATTTCTCTTCTCATGATCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCGCTGGA  
TCATCCCATTCTTCTGTTACAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC  
CAAATCCATTAGGAATACATACGGCACTGCCTCCTAATTTTCCCTACAGAGATGATGTCATGTGAGTGAATC  
CTACCTGTTTGGTCCTTATTATTTCTCTGTTTATTAGCATTATCTTGACTTTTAAAGGTTACTTGATTAGCTGTG  
TTTGGAACTGCTACCGATACATCAATGGTAGGAACCTCCTGATGTCCCTGGTTTATGTTACCGCAATGACACTA  
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCGCAAGGAGCCACCGCCACCTTACGTGTCTG  
CCTAAGCCTTCAAGTGGGCGGAGCTGAGGCGAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT  
CACTTTTGCCATGAGCCTCTCTGAGCTTTGTTGTTGCTGAAATGCTACTTTTTAAATTTAGATGTTAGATTGAA  
AACTGTAGTTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAACTGTAGAATTTCTTCTGTACGATTGGG  
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCAAATCTGATGGACCTAGAAGTCTGCTTT  
TGTACCTGCTGGGCCCCAAGTTGGGCATTTTTCTCTCTGTCCCTCTCTTTTGAATAATGAAAATAAAACAAA  
AATAGACAACTTTTTCTCAGCCATCCAGCATAGAGAACAAAACCTTATGGAACAGGAATGTCAATTGTGTAA  
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCACAACATCCTTTATGAC  
TGAAGTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCATGGCCTGAATTAAGACCATTAGAAAACA  
CCAGGCGCTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGACATGGGGTGACATGCC  
TCGTATGTGTTAGAGGGTGGAAATGGATGTGTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCCTGGATTAC  
ATCCCCACCGAGGCCCGCTTTTACTAAGTGTTCTGCCCTAGATTGGTTCAAGGAGGTATCCAACCTGACTTTAT  
CAAGTGGAAATGGGATATATTTGATATACTTCTGCCTAACACATGGAAGAGGTTTCTTTTCCCTGCAAGCTA  
CATCCTACTGCTTTGAACCTTCCAAGTATGTCTAGTCACCTTTTAAATGTAACATTTTCAAAAAATGAGGATT  
GCCTTCCTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTATATATTCATATGTTACAAAT  
CAGCACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTGTGTTGCAATTAACAAGGTTTGCCCA  
CAAAAAA

**FIGURE 555**

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYNSGCCLC  
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA  
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF  
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDITVLLPPYDDATVNGAAKEPPPPYVSA

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**FIGURE 556**

GGACAACCGGCTGGGGTCTTGCGCCCGGGCTCAGGGAGGAGCACCAGCTGCGCCGCCCTGAGAGATGTT  
GGTGCCATGTGGAAGGTGATTGTTTCGCTGGTCTGTTGATGCTGGCCCTGTGATGGGCTGTTTCGCTCCCTA  
TACAGAAGTGTTTCCATGCCACCTAAGGGAGACTCAGGACAGCCATTATTCTCACCCCTTACATTGAAGCTGGG  
AAGATCCAAAAAGGAAGAGAATTGAGTTTGGTCGGCCCTTCCAGGACTGAACATGAAGAGTTATGCCGGCTTC  
CTCACCGTGAATAAGACTTACAACAGCAACCTCTCTTCTGGTCTTCCAGCTCAGATACAGCCAGAAGATGCC  
CCAGTAGTTCTCTGGCTACAGGGTGGGCCGGGAGGTTTCATCCATGTTTGGACTCTTTGTGGAACATGGGCCTTAT  
GTTGTACAAAGTAACATGACCTTGGCTGACAGAGACTTCCCTGGACCACAACGCTCTCCATGCTTTACATTGAC  
AATCCAGTGGGCACAGGCTTCAGTTTACTGATGATACCCACGGATATGCAGTCAATGAGGACGATGTAGCACGG  
GATTTATACAGTGCACTAATTCAGTTTTTCCAGATATTTCTGAAATATAAAAAATATGACTTTTATGTCACATGGG  
GAGTCTTATGCAGGGAAATATGTGCCAGCCATTGCACACCTCATCCATTCCCTCAACCCTGTGAGAGAGGTGAAG  
ATCAACCTGAACGGAATTGCTATTGGAGATGGATATTCTGATCCCGAATCAATTATAGGGGGCTATGCAGAATTC  
CTGTACCAAAATGGCTTGTGGATGAGAAGCAAAAAAGTACTTCCAGAAGCAGTGCCATGAATGCATAGAACAC  
ATCAGGAAGCAGAAGTGGTTTGGGCCCTTTGAAATACTGGATAAACTACTAGATGGCGACTTAAACAAGTGATCCT  
TCTTACTTCCAGAAATGTTACAGGATGTAGTAATTACTATAACTTTTTGCGGTGCACGGAACCTGAGGATCAGCTT  
TACTATGTGAAATTTTTGTCACCTCCAGAGGTGAGACAAGCCATCCACGTGGGGAATCAGACTTTTAAATGATGGA  
ACTATAGTTGAAAAGTACTTGCAGAGAAGATACAGTACAGTCAGTTAAGCCATGGTTAACTGAAATCATGAATAAT  
TATAAGGTTCTGATCTCAATGGCCAATGGACATCATCGTGGCAGCTGCCCTGACAGAGCGCTCCTTGATGGGC  
ATGGACTGGAAGGATCCAGGAATACAAGAAGGCAGAAAAAAAGTTTGAAGATCTTTAAATCTGACAGTGAA  
GTGGCTGGTTACATCCGGCAAGTGGGTGACTTCCATCAGGTAATTATTGAGGTGAGGACATATTTACCCCTAT  
GACCAGCCTCTGAGAGCTTTTGACATGATTAAATCGATTCAATTATGAAAAGGATGGGATCCTTATGTTGGATAA

ACTACCTTCCCAAAAGAGAACATCAGAGGTTTTTCATTGCTGAAAAGAAAATCGTAAAAACAGAAAATGTCATAG  
AATAAAAAAATTATCTTTTCATATCTGCAAGATTTTTTTCATCAATAAAAAATTATCCTTGAA

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**FIGURE 557**

MVGAMWKVIVSLVLLMPGCDGLFRSLYRSVSMPPKGD SGQPLFLTPYIEAGKIQKGRELSLVGPPFGLNMKSYA  
GFLT VNKTYNSNLFWFPPAQIQPEDAPVVLWLQGGPGGSSMFGLFVEHGPYVVT SNMTLRDRDFFWTTT L SMLY  
IDNPFVGTGFSFTDDTHGYAVNEDDVARDLYSALI QFFQIFPEYKNND FYVTGESYAGKYVPAIAHLIHS LNPVRE  
VKINLNGIAIGDGYSDPESII GGyAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGD L TS  
DPSYFQNVITGCSNNYNFLRCTEPEDQLYVVKFSLPEVVRQAIHVGNQTFNDGTIVEKYLR EDTVQSVK PWLTEIM  
NNYKVL IYNGQLDIIVAAALTE RSLMGMDWKG SQEYKKA EKKVWKIFKSDSEVAGYIRQVGDFHQV IIRGGGHIL  
PYDQPLRAFDMINRFIYGKGWDPYVG



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FIGURE 558

CTACCTCTTCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCTGAAGATGCCGGGAAACTC  
CGTAGTGACGCTGGTTTGGAACTCAGACACCGCAATGAAAAAGGGGAGACTGCGAAAGCAACCCGAGGAGAAA  
GAGAAAAAAGAGAAAGCCAAATCTGATAAGACTGAAGAGATAGCAGAAAGGAGAAACTGTTTTCCCCAAAGC  
TAAACAAGTTAAAAAGAAAGCAGAGCCTCTGAAAGTTGACATGAATCTTCCCTAAATCCAAAAGGCCAAAAAAGAA  
AGAGGAGCCATCTCAAAATGACATTCTCTCTAAAACCAAAGTTTGAGAAAGAAAAAGGAGCCCCATTGAAAAGAA  
AGTGGTTTCTCTTAAACCCAAAAAGTGACAAAAAATGAGGAGCCCTCTGAGGAAGAAATAGATGCTCCTAAGCC  
CAAGAAGATGAAGAAAGAAAGGAAATGAATGGAGAAACTAGAGAGAAAAGCCCCAAACTGGAAGATGGATTTC  
TCATCTGTAACCGGACTGTAACCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGAGATAGAGCAGGAAATACC  
TGTGGAACAAAAAGAGGCGCTTCTCTAATTTTCCCATATCTGAAGAAACTATTAACCTTCAAGGCGCGAGG  
AGTGACCTTCTTAATTTCTATACAAGCAAGACATTCATCATGTTTACAGCGGGAAGGACTTAATTCGACAGGC  
ACGGACAGGAACTGGGAAGACATCTCTCTTGGCCATCCCTTTGATTGAGAACTTCATGGGGAATGCAAGACAG  
GAAGAGAGGCGGTGCCCCCTCAGGTACTGGTTCTTGACCTACAAGAGAGTTGGCAAACTCAAGTAAGCAAAAGACTT  
CAGTGACATCAAAAAAGCTGTCAGTGGCTTGTGTTTTATGGTGGAACTCCCTATGGAGGTCAATTTGAACGCAT  
GAGGAATGGGATTGATATCTCTGTTGGAAACACCGAGGTCGTATCAAAGACCACATACAGAAATGGCAAACTAGATCT  
CACCAACTTAAGCATGTTGTCTGGATGAAGTGGACAGATGTGGATATGGGATTTGCTGATCAAGTGAAGA  
GATTTTAAGTGTGGCATAAGAAAGATTCTGAAGACAATCCCAACATTGCTTTTTCTGCACTTGCCCTCA  
TTGGGATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCTGATTGGTAAAGAGACTCA  
GAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGGCACTGGACTCAGAGGGGACGAGTTATTGGGGATGT  
CATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAAAGGCCAGGAGCTGTC  
CCAGAAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCTGAGACACTTCCACAGAAGCAAGGGGAAATCACCTT  
GAAAGTTTTAGAAATGGTAGTTTGGAGTTTTGGTGGCAACCAATGTTGGCTGCAGCTGGGTAGACATCTCCGA  
GGTTGATTGGTTATACAAAGCTCTCCACCAAGGATGTAGAGTCTCATATTTCATCGATCCGGGCGGACAGGCA  
AGCTGGAAGGACGGGGGTGTCATCTGCTTTTATCAGCACAAAGGAAGAATACAGTTAGTACAAGTGGAGCAAAA  
AGCGGGAATTAAGTTCAAACGATAGGTGTTCTCTTGCAACAGAAATAATAAAGCTTCCAGCAAGATGCCAT  
CAGGCTTTTGGATTCCGTGCTCCTCCTGCCATTAGTCACCTCAAACAATCAGCTGAGAAGCTGATAGAGGAGAA  
GGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTACAGTGGCCAGCTCCGTAGACAGCGCTCCTTGAT  
CAACTCAAAATGTTGGTTTTGTGACATGATCTTGAGTGTCTCAATTGAAATGCCAAATATTAGTTATGCTTGGAA  
AGAATCTAAGAGCAGCTGGGCGAGGAGATTGATCCAAAGTGAAGGGAATGGTTTTCTCAAGAGGAAAGCTGGG  
TGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGATTCACGACGAGTGGCAGCT  
CTCTGTGGCCACAGAGCAACCAAGCACTGGAAGGACCACGGGAAGGATATGGAGGCTTCAGGGGACAGCGGGAAGG  
CAGTCGAGGCTTCAGGGGACAGCGGGACGGAACAGAAAGATTGAGAGGACGCGGGAAGGAGGAGTGGAGGCGGAG  
AGGACGCGATCAGGAGGTGGCAACAAAGTAAACAGATCCCAAAACAAAGGACGAGCGGAGTTTCAGTAAGAC  
ATTTGGTCAATAAATAGAAATAGAAGATTATATAGCAAAAGAGAATGATGTTTGGCAATATAGAACTGAACAT  
TATTTTCATGCAAAAGTTAAAGACACATTTGTCCTCCTTTTGACCCTTGCCAAAGTCCCTGCTCTCTTCAGACAC  
AGACAAGCTTCATTTAAATATTTCACTGTCATATCATTTATAAATTTATGTTACTTTCATGTTTCTGTTTCTCT  
TTTGAAGGTGTATGAATTCATTACATTTTATCTAATGTATTATCTGTAGATTAGAAGATAAAATCAAGCATG  
TATCTGCCATAGCTTTGTGAGTTCACCTGTCTTTATACTCAAAGTGTCCCTTAATAGTGTCTTCCCTGAAATA  
AATACCTAAGGAGCTGTAACAGCTCTGGAGGACCACTTGAGCCTTTGGAAGTTAAGGTTTTCTCAGCCACCTG  
CCGAACAGTTTCTCATGTGGTCTTATTATTGTCTACTGAGACTTAATACTGAGCAATGTTTGAACCAAGATT  
CAAACATACTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGAAAGATGTAGATGTTTGTG  
GATTACCTAATCTTATGTTGTTTTGATACATTTTTAGCTTCTCATTATAAGGTGATTATGCTTTAGTGAATTC  
TTCATAGATAGTATATAAAGATGACATTTAATAGAAGCCAGGTTTAAAGGAAATTCACATGTATAAGGTG  
CTCCATAGCTTTATTTGTAAGTAGGCTGGAATAAATGGTGCTTAAATGTAATGTAAGTACTCCACTCTCTCTTATGGA  
AGATTAACATTTATTTACCAAGAGGACTTAAGGGAGTAAGGGGCGCAGATTAGCATTTGCTCAAGAGTATGTAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 559**

MNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSTKKVTKNEEPSEEEIDAPKPKMKKKEKEMNGET  
REKSPKLKNGFPHPPEPCNCPSEAAASEESNSEIEQEIPVEQKEGAFSNFPISEETIKLLKGRGVTFLLFPIQAKTFH  
HVYSGKDLIAQARTGTGKTFSAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELANQVSKDFSDITKKLSVACFY  
GGTPYGGQFERMRNGIDILVGTGRIKDHIIQNGKLDLTKLKHVVLDDEVQMLDMGFADQVEEILSVAYKKDSEDN  
PQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRAAVIGDVIRVYSGHQGRTII  
FCETKKEAQELSQNSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAARGLDIPEVDLVIQSSPPKDV  
ESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEIIKASSKDAIRLLDSVPPTAISH  
FKQSAEKLEEKGAVEALAAALAHISGATSVDQSRSLINSNVGFVTMILQCSIEMPNISYAWKELKEQLGEEIDSK  
VKGMVFLKGKLGVCDFDVPTASVTEIQEKWHDSSRRQLSVATEQPELEGPREGYGGFRGQREGSRGFRGQRDGNRR  
FRGQREGSRGPRGQRSGGGNKSNRSONKGQKRSFSKAFGQ

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**FIGURE 560**

CGATTTCATTCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCTATCTTGCTAGCCCATCCCCAGACT  
ATCTCAAGGACCAAGCTGTCCCCACGCCCGGACCTCCACTAGGCGCTGTGCCACCCGCTGCCGTGAGGAAGACGCC  
CGGTCCCGGGCGGGTTAGCCCC**ATTG**GGAACGACGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA  
GTGAACAGCACGTCCAGGAGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCGGTCCG  
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCTGGGCCAGCCACCCCGCGCGCGGCCATGGCAGGCACCTTGG  
ACCTGGACAAGGGCTGCACCGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC  
GGGACCCGCACTGGTGCATGTTCTCATGATGCACCCCTGGTACATCCCTCCTCTCAGCTGGCGGCCAAGC  
TGCTCCACATCTACCAACAATCCCGGAAGGACAACCTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT  
ACTGGATCTCCGCCTTCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC  
TGCTAGACCAAGAAAGGGAACCGACGGCACAGCAGCTTAATCGACATAGACAGCGTCCCTACCTACAAGTGGAAGC  
GGCAGGTGACTCAGCGGAACCTGTGGGACGAAAAAGCGCAAGATGTCCTGTGTGTTGACCACCTGGAGCCCA  
TGGAGCTGGCGGAGCATCTACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTGTTAGGACTATACAGTT  
TCGTGACTCATGGCTGCACGTGGGACAACCCGCTCTGGAGCGGTTTATCTGCCCTTTCAACAGCGTCTCACAGT  
GGGTGCAGCTCATGATCTCAGCAAAACCCACAGCCCGCAGCGGGCCCTGGTTCATCACACACTTTGTCCACGTGG  
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTCGGGGGCTGAGCCACAGTCCATCT  
CCCGCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACCTAGTGA  
CGGCGACAGGCAACTATGGCAACTACCGCGCTCGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCGATCCTGGGTG  
TGACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCGTACTGGCTGAGCCACGCCGCGGACCCGGCTCAAG  
GGGCCAAGATGAAGCAGCTCTTTAGCATCTGGAGGAGCTGGCCATGGTGACCAGCTCGCGGCCACAGTACAGG  
CAAACCCCGACCTGCTGAGCCTGCTCAGCGTGTCTTGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT  
CCCTGACGCGGGAGCCGCGCTCAAGTCTCGCCAAACGACCCCAAGTGTGCACCCACACCCCGGCCCGCCG  
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAAGCTGGATCAGGCCCTCGTGGTGAGCACATCGAGAAGATGG  
TGGAGTCTGTGTTCCGGAACCTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG  
GGAACCTCCCTTACCTCAGCGCCTTTGGGGACCTGACACAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG  
TTTCCTATTTCCTGCGCTCCAGCTCTGTGTGGGGGGCGCATGGGCTTCGTACACAACCTTCCAGGAGAGCAACT  
CCTTGGCGCCCCGTGCCCTGCCGCCACTGCAAAGCCCTGATCTTGGGCATCTACAAGCAGGGCCCTCAAATGCCGAG  
CCTGTGGAGTGAATGCCACAAGCAGTGAAGGATCGCTGTGAGTTGAGTGTGGCGCAGGGGCCAGAGTGTGA  
GCCGTGAGGGGTCTGCACCCCTACCCCTACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC  
GCCCTGGCAGGCGAGGCTCCAGGCCCTCAGAGATCCGTGAGGAGGAGTACAGACGGTGGAGGATGGGGTGTGTTG  
ACATCCACTTGT**TAA**TAGATGCTGTGTTGGATCAAGGACTCATCTCGCCTTGGAGAAAAACTTCAACACAGAC  
AGGGAGCCTGGGGGTGTGGGGCAGGAGGCTGGGGATGGGGTGGGATATGAGGTTGGCATGCAGCTGAGGGCAG  
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTGTGTAATTTGTATTTTCCAGATGGAATAAAAAGGCC  
GTGTAATTAACCTTA

**FIGURE 561**

MGTRQLCGRGTQGWPGSSEQHVQEATSSAGLHSGVDELGVRSEPGGRLPERSLGAHPAPAAAGTLDLDKGCTV  
EELLRGCI EAFDDSGKVRDPQLVRMFLMMHPWYIPSSQLAAKLLHIYQQSRKDNSNSLQVKTCHLVRYWISAFPA  
EFDLNPELAEQIKELKALLDQEGNRRHSSLIDIDSVPTYKWKQRQVTQRNPVGQKKRKMSSLLFDHLEPMELAEHLT  
YLEYRSFCILFQDYHSFVTHGCTVDNPVLERFISLFNSVSQWVQLMILSKPTAPQALVITHFVHVAEKLQLQ  
NFNTLMAVVGGLSHSSISRLKETHSHVSPETIKLWEGLTELVTATGNYGNYRRRLAACVGRFRPPI LGVHLKDLVA  
LQLALPDWLDPARTRLNGAKMKQLFSILEELAMVTSLRPPVQANPDLLSLTIVSLDQYQTEDELYQLSLQREPRS  
KSSPTSPTSCTPPRPPVLEEWTSAAKPKLDQALVVEHIEKMVESVFRNFDVDGDGHISQEEFQIIRGNFPYLSA  
FGDLDQNQDGCISREEMVSYFLRSSSVLGGRMGFVHNFQESNSLRPVACRHCKALILGIYKQGLKCRACGVNCHK  
QCKDRLSVECCRRAQSVSLEGSAPSPSPMHSHHHRAFSFSLPRPGRRGSRPPEIREEEVQTVEDGVFDIHL

## FIGURE 562

GCCTGTCCTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCAACTACG  
ACGTTAGCTTCTACCATGACGAGGACAGTACCTGCCACCACAAGAGCCCCGGGACCACCGTCCACAGATCCACC  
TACCAGAACCCAGACAGAGACACCAAGCCTGACAGCTGCAGTCCCAAGCTCAGTTAGTGTCCCCAGGGCTCCC  
AGCATCAGCCGCTTACCTTAAGCCCTGCAACCAGCAACCACTCCAGCACTATGCAAAATGAAGACAGTAAGATG  
GGCTCAACAGTCACTGCCGCTGTTATCGGGATCATCTGCCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGG  
TACCTGATCTGGAGAACTGGAAGCGGAAGAACACCAAAAGCATGAATTTTGACAAACCCAGTCTACAGGAAACA  
ACAGAAGAAGAACGCAAGATGAGCTCCATATAGGGAGAACTGCTCAGATTGGCCATGTCTATCCTGCAGCAATC  
AGCAGCTTTGATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCTGCC  
CTCAAGGAGCTTTTTGTCTTGCCGGGGGAACCAAGGTACAGCTGCACCAACTCCCGAAGAACCCTCTTTCCGAG  
CTGCCCTGCTGTCAAATCCAAGCGAGTGGCATTAAAGCCTTGAAGATGATGGACTACCTGAGGATGGGATCACCCC  
CTTCGTGCCTCATGGAATTCAGTCCCATGCACTACACTCTGGATGGTGATGACTGGATGAATGGGTTTCTATAT  
ATGGGTCTGTGTGAGTGTATGTGTGTGTGATTTTTTTTTTAAATTTATGTTGCGGAAAGGTAACCACAAAGTT  
ATGATGAACCTGCAAAACATCCAAAGGATGTGAGAGTTTTCTATGTATAATGTTTATACACTTTTTAACTGGTTG  
CACTACCCATGAGGAATTCGTGGAATGGCTACTGCTGACTAACATGATGCACATAACCAAAATGGGGGCCAATGGC  
ACAGTACCTTACTCATCATTTAAAACTATATTTACAGAAGATGTTGGTTGCTGGGGGGGCTTTTTTAGGTTT  
TGGGGCATTGTTTTTTGTAAATAAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAAAAAAAA  
AACACTTCAACTCCCTCCCCCATTTAGATTATTTATTAACATATTTAAAAATCAGATGAGTTCTATAATAATAT  
TAGAGAAGTGAGATATTTATTTTTGGCATGTTTGGCCACCACACAGACTCTGTGTGTATGTGTGTGTTAT  
ATGTGTATGTGTGTGACAGAAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAA  
ATTTATTTTACACAGTCCCAAGGGGTATATCTTGTAGTTTTAGAAAAGCCTTTGGAAATCTGGATCAGAAAA  
TAGATACCATGGTTTGTGCAATTATGTAGTAAAAAAGGCAATCTTTTACCTCTGGCTATTCCTGAGACCCAG  
GAAGTCAGGAAAAGCCTTTCAGCTCACCCTATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGG  
TCAGTGTACAGACATTCATGGTACCAGAGTGCTCAGAACTCAAGATAGGATAGCCTCACCTCAGCTACTCC  
TTGTTTTAAAGTTCAGCTCTTGTAGTAACTTCTCAATTTCTTTCAGGACACTTGGGTTGAATTCAGTAAAGTTT  
CTCTGAAGCACCTTGAAGGTTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTAT  
AGAGACTGGCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAGATGGTGGAAATAGGTTTTATCAC  
ATCTCTTATTTCTTTTTCCCCCTTACTCTACCATTTTCTTTATGTGGGGAAACATTTTAAAGTAAATAAATAGG  
TTACTTACCATCATATGTTATATAGATGAACTAATTTTGGCTTAAAGTCAGAACAACTGGCCAAAATTTGAAGT  
CATATTTGAGGGGGGAATGGCATACGCAATATTTATTTATTTGGATATTTATGTTTCACACAGGAATTTGGTTT  
ACTGCTTTGTAATAAAAGGAAAACTCCGGGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 563

GGGAGGACCCCAATCTAGGCCCAAGAGGAAAGGCCACGTGCCGTGATGAGCGTATGAGCATGTGCATGCGCGTG  
TGTGCACAGGGTGGTGCACCTGGCAGGGGTCCTTGAGTAGGCCATGCCCATCTGTAGCAGGGAACCTGGAAATG

GGCTGTGTGTTCTGCAAGAAATTGGAGCCGGTGGCCACGGCCAAGGAGGATGCTGGCCTGGAAGGGGACTTCAGA  
AGCTACGGGGCAGCAGACCACCTATGGGCCTGACCCCACTAAGGCCCGGCTGCATCCCTCATTTGCCACATCCCC  
AACTACAGCAACTTCTCCTCTCAGGCCATCAACCCCTGGCTTCCTTGATAGTGGCACCACAGGGGTGTGCAGGG  
ATTGGGGTGACCTGTTCATTGCCCTGTATGACTATGAGGCTCGAACTGAGGATGACCTCACCTTACCAAGGGC  
GAGAAGTTCACATCTCTGAACAATACCTGAAGGTGACTGGTGGGAGGCTCGGTCTCTCAGCTCCGGAAAACTGGC  
TGCAATCCAGCAACTACGTGGCCCTGTTGACTCAATCCAAGCTGAAGAGTGGTACTTTGGAAGATTTGGGAGA  
AAGGATGCAGAGAGGCAGCTGCTTTACCAGGCAACCCCCAGGGGGCTTTCTCATTCCGGAAAGCGAGACCACC  
AAAGGTGCCTACTCCTGTCCATCCGGGACTGGGATCAGACCAGAGCGCATCATGTAAGCATTACAAGATCCGC  
AAACTGGACATGGGCGGCTACTACATCACCACACGGGTTCAAGTTCAGTTCAGTTCAGGAGCTGGTGCAGCACTAC  
ATGGAGGTGAATGACGGGCTGTGCAACCTGCTCATCGCGCCCTGCACCATCATGAAGCCGCAGACGCTGGGCGTG  
GCCAAGGACGCTGGGAGATCAGCCGACGCTCCATCAGCTGGAGCGCCGGCTGGGCACCGCTGCTTCGGGGAT  
GTGTGGCTGGGCACGTGGAACGGCGACACTAAGGTGGCGGTGAAGACGCTGAAGCCGGGCACCATGTCCCGAAG  
GCCTTCCTGGAGGAGGCGCAGGTTCATGAAGCTGCTGCGGCACGACAAGCTGGTGCAGCTGTACGCCGTGGTGTG  
GAGGAGCCCATCTACATCGTGACCGAGTTTATGTGTACGGCAGCTTGCTGGATTTCCTCAAGAACCCAGAGGGC  
CAGGATTTGAGGCTGCCCAATTGGTGGACATGGCAGCCAGGTAGCTGAGGGCATGGCCATACATGGAACGCATG  
AACTACATTACC CGCAGCTGAGGGCAGCCAACATCTGGTTGGGAGCGGCTGGCGTGCAAGATCGCAGACTTT  
GGCTTGGCGCGTCTCATCAAGGACGATGAGTACAACCCCTGCCAAGGTTCCAAGTTCCCCATCAAGTGACAGCC  
CCAGAAGCTGCCCTCTTTGGCAGATTCAACCATCAAGTCAGACGCTGTGGTCTTTGGGATCTGCTCACTGAGCTC  
ATCACAAGGGCCGAATCCCCATCCAGGCATGAATAAACGGGAAGTGTGGAAACAGGTGGAGCAGGGCTACCCAC  
ATGCCGTGCCCTCCAGGCTGCCAGCATCCCTGTACGAGGCCATGGAACAGACCTGGCGCTGGACCCGGAGGAG  
AGGCCATCTTCGAGTACCTGCAGTCTCTTCTGGAGGACTACTTCACTCCCGTGAACCAACAGTACCAGCCCGGG  
GATCAGACATAGCCTGTCCGGGATCAACCCCTCTCTGGCGGTGGCCACCAAGTCTTGCCTATCCCGAGAGCTGTT  
CTTCCAAAGCCCCAGGCTGGCTTAGAACCCCATAGAGTCTCTAGCATCACCAGGACGCTGGCTGCTTGACACCA  
CCTAGGGCAACCTACTTGTTTTACAGATGGGGCAAAAGGAGGCCAGAGCTGATCTCTCATCCGCTCTGGCCCCA  
AGCACTATTCTTCTTTTCACTTAGGCCCTTACATGCCTGTAGCCCTTCTCACTCCATCCCCACCCAAAAGT  
GCTCAGACCTTGCTAGTTATTTATAAAGTGTATGTACCTCCCTCACTTCTCTCCTATCACTGCTTTCTCTACTCT  
CCTTTTATCTCACTCTAGTCCAGGTGCCAAGAAATTTCCCTTCTACCTCTATTCTCTGTGTCTGTAAAGTTACAA  
AGTCAGGAAAAGTCTTGGCTGGACCCCTTCTGCTGGGTGGATGCAGTGGTCCAGGACTGGGCTGTGGGCCAG  
GTTTGGGAGAAAGTTTCAGAGCACTTCCACCTCTCTGAATAGTGTGTATGTGTGATTATTGATTCTGTAA  
ATAAGTAAATGACAATATGAATCTCTCA

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**FIGURE 564**

MGCVFCKLEPVATAKEDAGLEGDFRSYGAADHYGPDPTKARPASSFAHIPNYSNFSSQAINPGFLDSGTIRGVS  
GIGVTLFIALYDYEARTEDDLTFTKGEKFHILNNTEGDWWEARSLSSGKIGCIPSNYVAPVDSIQAEWYFGKIG  
RKDAERQLLSPGNPQGAFLIRESETTKGAYSLIRDWDQTRGDHVKHYKIRKLDMGYYITTRVQFNSVQELVQH  
YMEVNDGLCNLLIAPCTIMKPOTLGLAKDAWEISRSSITLERRLGTCFGDVWLGTVNGSTKVAVKTLKPGTMSP  
KAFLEEAAQVMKLLRHDKLVQLYAVVSEEPYIVTEFMCHGSLDLFLKNPEGQDLRLPOLVDMAAQVAEGMAYMER  
MNYIHRDLRAANILVGERLACKIADFGLARLIKDDYENPCQGSKFPIKWTAPAAALFGRFTIKSDVWSFGILLTE  
LITKGRIPIYPGMNKREVLEQVEQGYHMPCPGCPASLYEAMEQWRLDP EERPTFEYLQSFLEDYFTSAEPQYQP  
GDQT

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**FIGURE 565A**

GCGAGAGGAGTCGGGATCTGCGCTGCAGCCACGCCGCGGTTGATACTACTTGTGACCTTCGGAGTGCAGTGAGGC  
ATACATCACAATTTGGAATTATGCATTGGTTTATCAATTTACTTGTTTATTGTGACCCCTGCTGCCAGATATGAC  
TTCATGAGGACAGTGAATGTGTGTTCTGAAATTTGTAACCATGAGTCTAGTACTTAATGATGCTGCTTATCTGCTGC  
CGTCAACTAGAACATGATAGAGCTACGAAACGAAAGAAAGAGTTGAGAAATTTAAGCGCCTGATTCGAGATCCT  
GAAACAATTAACATCTAGATCGGCATTGAGATTTCCAAACAGGAAAAATTTGAATTGGGATGCTGTTTTAGA  
TTTTTACAGAAATATATTCAGAAAGAAACAGAAATGCTGAGAAATGACAAACCAAAATGTAATCAGCCTCAACACAA  
GCCTCCAGCGAGAAAGAGATCGAGAAATCAGTAGTTTGGTCAAACTACTTCATCAAAATGTGCAAAACAGGAAGCA  
CCTAGGCTAAAATGTCAAGAAGCTCTTAAATATATCATGATGATACAGTGAAGATTTCATCTAATGTGGCTATTTC  
GGAGCTGATTGTAGCAACATACTACTCAAGACATTTCTTCTGTGAGAAAACTACTGGTGTGAAATATCTCAGCAA  
CAGTGGTTAGAAATTTGTTCTGTGTAATTCAGGCTCTATCTGAAACCTTCACAAGATGTTTCATAGAGTTTATGT  
GCTAGAAATATTCATGCTGTTACCAAGAGATGCTGTTCTCAGACTGACGGATTAAATTCCAAATTTTTGGACTTT  
TTTTCCAAGGCTATTCAGTGTGCGAGACAAGAAAGAGCTCTTCAGGCTCAAAATCATATCTTAGCAGCTCTTACT  
ATCTTCTCAAGACTTTGGCTGTCAACTTTGCAATTCGAGTGTGTAATTAGGAGATGAAATTTCTTCCCACCTTTG  
CTTTATATTTGGACTCAACATAGGCTTAATGATTCTTTAAAGAAAGTCAATTATGGAATTTTCAACTGCAAAAT  
TATATCCATCATCCGAAAGGAGCCAAAACCCAGAAAAAGGTGCTTAGTAATCAACAAATGGAGAAGGAAATTTTA  
TACAACCTTATATGATCTGCTAGTGAATGAGATAAGTCATATAGGAAGTAGAGGAAAGTATTCTTCAGGATTTTCGT  
AATATTGGCGTCAAAGAAAAATTTGATTGAATTGATGGCGAGATATCTGTCAACAGGTTTAAATGAAGATACCGAA  
TCCTTGGAGATTTCTCAATCTTACACTACTACAAAAGAGAATCTAGTGATTACAGTGCCCTTGCAAAAGGAAG  
AAAAAGAACTAGGCTGGGAAGTAATAAAAGATCACCTTCAGAAGTCACAGAATGATTTTGAATCTTGTGCTTGG  
CTACAGATTGCAACCAATTAATATCAAGATATCTGCAAGTTTACCTAAGTGTGAGCTGTCTCCATTACTGATG  
ATACTATCTCAGCTTCTACCCCAACAGCGACATGGGGAACGTACACCATATGTGTTACGATGCCATTACGGAAGT  
GCATTGTGTCAGACAAGAGGTCAAACCTAGAAAGCTCAGAAAAGTCAGATTTATTTAAACTCTGGAATAAAAAAT  
TGGTGATTACCTTTTCGTTGATTAAGTCTGAGCAAAATACAAGCTGAAAACCTTTGGCTTACTTGGAGCCATAAT  
CAGGGTAGTTTAGTTGAGGTTGACAGAAATTTGGAAGTTATTCTGGGTGAGCTGACGATCCATATGCTCTCT  
GCAGTATGCTGTTGACTTTGGCACTGACCACCAAGTATAGTTCCGAGAGCGGTAAAAATGGGAATAGAGCAAAAT  
ATGTGTGAAGTAAATAGAAGCTTTTCTTTAAAGGAATCAATAATGAAATGGCTCTTATTCTATCAGTTAGAGGGT  
GACTTAGAAAAATAGCACAGAAGTGCCCTCAATTTCTCACAGTAAATTTCTCATCTTGTACTGGAGAAAAATCTT  
GTGAGTCTCACTATGAAAACCTGTAAGCTGCAATGAATTTTTTCCAAAGCGTCCAGAATGTGAACACACCCAA  
AAAGATAAAGAAGAACTTTCATCTCAGAAGTAGAAGAACTATTCTTCAGACAACTTTTGACAACTAGGACTTT  
TTAAACCTTGTGAGAGAAATGGGTATAGAAAAGCACCAGTCCAGTATTGGCTTCTCTGTGCCACAGAAATCTCAAG  
GAATCACTGGATGCTGTCTTCTGGGATTACAGAACAGCTTCTGAATAATTAATCTATCTGAGATTACAAATTC  
GAAACTCTGTGCGGTGTTTCACTGTTTTCGTTGGGTGTCCTGGCTGCTAGTGTACATGGGTGTAATAGCTGAA  
GAGGAAGCATATAAGTCAGAATTTATCCAGAAAGCCAACTCTCTAATGCAATGTGCGAGAGAAAGTATCACTCTG  
TTTAAAAATAGACAAATAGAGGAATTCAGAATTTGTTCCCTTGAGAAATATGATGCAGCTATGTACACGTTGCTGT  
ACCACTGTACCAAGAGAGCTCAAAATAGATTTGCATCTGGCTTTTCTGCGATTGTTAAACATCAAGGTAATG  
AATGACATTGCAGATATTTGTAAGTTTATGATCCTTCAATCAAAAAGCCATTTGACCGTGGAGAAGTAGAATCA  
ATGGAAGTAGTATCAATGGAATTTAATGGAGGTGGAGGATCAGTCATCCATGAATCTATTAAACGATTACCTT  
GATAGTAGTTGTAGTGACGAACAGCAACCTGGAGAGAGCCAAAGTACCATAGGTCGCAATTAAGCTTTAGTGTAA  
GAATATCTGCAAGCAAGATCTACTTTCTTAGACATGCTCAAGTTCTTGTGTTTGGTGTAACTACTGCTCAG  
ACCAATACTGTGTCTTTAGGCGAGCTGATATTCGGAGGAATTTGTAATGTTAATGATTTAGCTAGCGCTAGAA  
CCTACCAATCTCCCTCAGCTGATATGTATCTAATGCTTTTAAAGGAGCTTCTGGAGAAGAGTACCCCTTGCCA  
ATGGAAGATGTTCTTGAATCTCTGAAACCACTATCCAATGTGTGTTCTTTGATGCTGTGACGCAAGATGTTTGT  
AAAACATTTTTAAACCATGTCTTCTATGTAGTGA AAAACCTAGGTCAAAGCAATATGGCATCTGAGAGCAAAAG  
GATGCTCAAGGACAGTTTCTTACAGTAATTTGGAGCAATTTTGGCATCTAACAAAGGAGAGGAAATATATATTCTCT  
GTAAAGATGGCCCTAGTAATAATGGCTTTAAACCTTTGCTTGGAGCTGATCCTTATCAAAATGGGCCATTTTAAT  
GTAATGGGAAAAAGACTTTCTGTAAATGAAGTATTTACAACTTTCTGTCAGCAATCATCACAAGTTTCGATG  
TTGGCTGCAGAGTCAATCAATAGATTGTTCCAGGACACGAAGGGAGATTCTCCAGGTTACTGAAAGCACTTCCT  
TTGAAGCTTCAGCAACAGCTTTTGAATAATGCATACTTGAAGCTCAGGAAGGAATGAGAGAAATTCCTCATG



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**FIGURE 565B**

GCTGAGAACCCGTGAAACTTTGGATGAAATTTATAATAGAAAATCTGTTTACTGACGTTGATAGCTGTGGTTTTT  
TCCTGTAGCCCTATCTGCGAAAAACAGGCTTTGTTTGGCCCTGTGTAATCTGTGAAAGAGATGGATTAGAACCCT  
CACCTTGTGAAAAAGGCTTTTAGAGAAAGTTTCTGAAACTTTTGGATATAGACGTTTAGAAGACTTTATGGGACTCT  
CAITTTAGATTATCTGGTTTTGGGAATGGCTAAATCTTCAAGATACTGAATACAACTTATCTTCTTTCTCTTTTATT  
TTATTAACACACAAAATTAGGAGTTTCTATAGATCTTGTATAAGGTTTTGATTCCACATCTGGTGATTAGA  
AGTCATTTTGTAGAGGTGAAGTCATTGCTAATCAGATTCAAGAGGACTGGAAGAGCTTCTTAAACAGACTGCTTT  
CCAAAGATTCTGTGAAATTTCTCTTATTTTGGCTATGAGGGTACCGAGACAGTGGGATGGGACAGCAAGA  
GAGACTGCTACCAAGGCTCATGATATGCTTAAAGTGAAGTATTTGGGAAAAACAGATTGATCACTTATTCATT  
AGTAATTTTACCAGAGATTGTGGTGGAGTTATTGATGACGTTACATGAGCCAGCAAAATCTAGTGCCAGTCAGAGC  
ACTGACCTCTGTGACTTTTCAGGGGATTTGGATCCTGCTCCTAATCCACCTCATTTTCCATCGCATGTGATTAA  
GCAACATTTGGCTATATCAGCAATTGCTATAAAACCAAGTTAAAAAGCATTTTAGAAATCTTTCCAAAGGCCCT  
GATTCTATCAGAAAATCTTCTTGCCATATGTGAGCAAGCAGCTGAAACAAATATGTTTATAAGAACACAGA  
ATTCTTAAAAATATATCACCCTGTTTGTAGTTTATTACTGAAAGATATAAAAAGTGGCTTAGGAGGAGCTTGGGCC  
TTTGTTCTTCGAGACGTTATTATACATTGTGATTCACTATATCAACCAAAGGCCCTTCTGTATCATGGATGTGTCA  
TTACGTAGCTTCTCCCTTTGTTGTGACTTATTAAGTCAGGTTTGGCAGACAGCGTGACTTACTGTACAGGATGCT  
CTAGAAAAACCATCTTCATGTTATTGTTGGTACACTTATACCCCTTGTGTATGAGCAGGTGGAGGTTTCAGAAACAG  
GTATTGGACTTGTGAAATACTTAGTGATAGATAACAGGATAATGAAACCTCTATATCAGCATTAAGCTTTTA  
GATCCTTTTCTCGACCATGTGTGTTTTTAAGGATTTGCGTATTACTCAGCAAAAATCAAAATACAGTAGAGGACCC  
TTTTCACTCTTGGAGAAAATTAACCATTTTCTCTCAGTAAGTGTTTATGATGCATCTCCATTGACAAGACTTGAA  
GGACTAAAGGATCTTCGAAGACAACCTGGAACCTACATAAAGATCAGATGGTGGACATTATAGAGGCTTCTCAGGAT  
AATCCGCAAGATGGGATTATGGTGAACACTAGTTGCAATTTGTTGCAAGTTATCCAAGATGGCAATAAACCCACT  
GGTGAAAAAGAAGTCTAGAGGCTGTTGGAAGCTGCTTGGGAGAAGTGGGTCCATAGATTCTCTACCATAGCT  
ATACACATAGTAAAGATGCATCTTATACCAAGGCCCTTAAGTTATTGAAGATAAAGAACTCAGTGGACCTTC  
ATAAGCTGACACTCCTGTAATACACACTGGTAGAAGATTGTGTCAAAGTTCGATCAGCAGCTGTTACTGTTTG  
AAAAACATTTAGCCACAAGACTGGACATAGTTTCTGGGAGATTATAAGATGACACAGATCCAAATCTGTGCC  
TATCTACAGCCCTTTAGAACATCAAGAAAAAGTTTTAGAAGTACCCAGATTTGACAAAAGAAACCTTTTGAA  
GGCCTGGATGATATAAATCTGTGGGATTCCTTAAGTGAATCATGACATTTGGATAAAGACTGACTTGTGCT  
TTTTTGGACAGTGGAGGCCAAAAATGTGAAATTTCTCAATTTATAAGCCAATGTGTGAAGTGAAACACTGACTTT  
TGTCAGACTGTACTTCCATACCTGATTATCATGATATTACTCCAAGATATAATCATGAGAAATCTGCTT  
TCTACACATGTTCCAGGATTTTACCAGCTGTCTTCGACACTTCTCGCAAACGAGCCGATCCACAACCCCTGCA  
AACTTGGATTTCAGAGTTCAGAGCACTTTTCCGATGCTGTTGGATAAAAAATCACAAGAAACAACTGCTTGTCTGTT  
GTGGACTACATGAGAAGACAAAAGAGACCTTCTTCAGGAACAATTTTAAATGATGCTTCTGCTGGATTAAAT  
TATCTAGAAGTTGCCAAGGTAGCTCAGTCTTGTGCTGCTCACTTTACAGCTTTACTCTATGACAGAAATCATGTGA  
GATAAGAAAAGTATGGATGATCAAGAGAAAAGAGTCTTGCATTTGAAGAAGGAAGCCAGAGTACAACATTTTCT  
AGCTTGAGTGAAAAAGTAAAAGAGAACTGGAATAAGTTTACAGGATCTCTTATAGAAATCTCATAGAAATATA  
GGGAGGACAGATAGTTTGTATGGCTGTGGTGGAGGGAAGATGTTACAACCCATTACTAGACTACGAACATATGAA  
CACGAAGCAATGTGGGGCAAAGCCCTAGTAAACATATGACCTCGAAACAGCAATCCCTCATCAACACGCCAGGCA  
GGAATCATTCAGGCCCTTCGAGAATTTGGGACTCGCCATTTCTTCCGCTTATTTAAAGGATTTGGATTATGAA  
AATAAGACTGTGTCTTGAACCTAGAGAACTTCAATACCAAGCAGCATGGAGGAATATGCACTGGGACCATTCG  
ACTTCCGTGAGCAAGAAGTAGAAGGAACCAAGTTACCATCAATCTGTACAACTGCTCAAACTCTCAAGAGAC  
AGAGAATCTCTACATTTTATGAAAGTCTCAAAATGCGCAGAGTAAAGAAGTGGAGAGATGTGTAAGCGCAGC  
CTTGAGTCTGTGTTATTCGCTCTATCCCACTTAGCAGGTTGCAAGGCCATGGAGAGCTGGAAAGCATTTGGGGAG  
CTTTTCTAAGATCAGTACACATAGACAACCTCTGAGGTATATTAAGTGGAGCAAACTCCCGAGTCTCTC  
AAGGACAGTGATTTTAGTTTTTCAGGAGCCTATCATGGCTCTACGCACAGTCATTTTGGAGATCTGTATGAAAAAG  
GAAATGGACAACCTACAAGAGCAATGTATTAAAGACATTTCTACCAAAACACCTTGTAGAATCTCTATACTGGCC  
AGAATCTTCAAGAACACTCAGCTCCCTGAAAGGGCAATTTTCAAAATTAACAGTACAAATCTAGTGTAGCTGTGGA  
GTCTCTGAGTGGCAGCTGGAAGAAGCAAGTATTCTGGGCAAAAAGGAGCAGAGTCTTGCCCTGAGTATTCTC  
AAGCAAAATGATCAAGAACTGGATGCCAGCTGTGCGAGGAACAAATCCCAGCTCAAACTTACATACACAGAATGT

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**FIGURE 565C**

CTGAGGGTTTGTGGCAACTGGTTAGCAGAAACGTGCTTAGAAAAATCCTGCGGTCATCATGCAGACCTATCTAGAA  
AAGGCAGTAGAAGTTGCTGGAATAATATGATGGAGAAAGTAGTGATGAGCTAAGAAATGAAAAATGAAGGCATTT  
CTCTCACTTAGCCCGGTTTTAGATACCTCAATACCAAGAATTGAAACCTACATGAAATCATCGGAATTTGAAAAAC  
AAGCAAGCTCTCTGAAAAGAGCCAAAGAGGAAGTAGGTCTCCTTAGGGAAACATAAAATTCAGACAAACAGATAC  
ACAGTAAAGGTTTCAGCGAGAGCTGGAGTTGGATGAATTAGCCCTGCGTGCACTGAAAGAGGATCGTAAACGGCTTC  
TTATGTAAGACAGTTGAAAATTTATATCAACTGCTTATTAAGTGGAGAAGAACATGATATGTGGGTATTCCGGCTT  
TGTTCCCTCTGGCTTGAATAATCTGGAGTTTCTGAAGTCAATGGCATGATGAAGAGACGGAATGAAGATTCCTCA  
ACATATAAAATTTTGCCCTCTTATGTACCAATTGGCTGCTAGAATGGGGACCAGATGATGGGAGGCTTAGGATTT  
CATGAAGTCTCTCAATAATCTAATCTCTAGAAATTTCAATGGATCACCCCCATCACACTTTGTTTATTATATCTGGCC  
TTAGCAAAATGCAACACAGAGATGAATTTCTGACTAAACACAGAGGTAGCCAGAGAAGCAGAAATAACTAAAAATGTG  
CCTAAACAAAGCTCTCAGCTTGATGAGGATCGAACAGAGGCTGCAATAGAATAATATGTACTATCAGAAGTAGG  
AGACCTCAGATGGTCAGAAGTGTGGAGGCATTTGTGATGCTTATATTATATAGCAAACTTAGATGCCACTCAG  
TGGAAGACTCAGAGAAAAGGCATAAATAATCCAGCAGACAGCCAATTACTAAACTTAAGAATTTAGAAGATGTT  
GTTGTCCCTACTATGGAAATTAAGGTGGACCACAGGAGAATATGGAATCTGGTGACTATACAGCTATTTAAAA  
GCAGAATTTGCTTAGCAGGAGGTTGTAATTTACCAAAAATAATAGATTGTGATGGTCCGATGGCAAGGAGAGG  
AGACAGCTTGTTAAGGGCCGTGATGACCTGAGACAAGATGCTGTCTGCAACAGGTCTTCCAGATGTGTAATACA  
TTACTGCAGAGAAACACGGAACCTAGGAAGAGGAAATTAACCTATCTGTACTTATAAGGTGGTCCCTCTCTCAG  
CGAAGTGGTGTCTTGAATGGTGACAGGAACCTGTCCTTGGTGAATTTCTTGTTAACAATGAAGATGGTGTCT  
CATAAAGATACAGGCCAAATGATTTTCAGTGCCCTTTCAGTGCCAAAAGAAATGATGGAGGTGCAAAAAAAGTCT  
TTTGAAGAGAAATATGAAGTCTTCATGGATGTTTGCCAAAATTTTCAACCAGTTTCCGTTACTTCTGCATGGAA  
AAATCTTGGATCCAGCTATTTGGTTTGAGAAGCGATTGGCTTATACGGCAGTGAGCTACTTCTCTATTGTT  
GGTTACATACCTTGGACTTGGTGATAGACATGTACAGAATATCTTGATAAATGAGCAGTCAGCAGAACTTGTACAT  
ATAGATCTAGGTGTGCTTTTGAACAGGGCAAAATCCTTCTACTCTTGAGACAGTTCCTTTTAGACTCACCAGA  
GATATTGTGGATGGCATGGGCATTACGGGTGTTGAAGGTGCTTCAGAAGATGCTGTGAGAAAAACCTGGAAGTG  
ATGAGAACTCTCAGGAAACCTGTTAACCATGTAGAGGTCTCTATATGATCCACTCTTGTGACTGGACCATG  
AATCCTTTGAAAGCTTTGTATTTACAGCAGAGGCCGGAAGATGAAACTGAGCTTACCCCTACTCTGAATGAGAT  
GACCAAGAATGCAAAACGAAATCTCAGTGATATTGACCAAGTTCACAAAGTAGCTGAACGTGTCTTAATGAGA  
CTACAAGAGAACTGAAAGGAGTGGAGAAGGCACCTGTGCTCAGTGTGGTGGAAGTGAATTTGCTCATACAG  
CAGGCCATAGACCCCAAAATCTCAGCCGACTTTTCCAGGATGGAAAGCTTTGGGTGTGATCTTCAGTATATGAA  
TTACCCCTTTCAATCAGCCTTTAGAAATATATTTTAGCCTTTATTTTAACTTGCCAACATACCTTAAGTAGGGA  
TAAATATTTAAGTGAATTTGTGGGTTTTTTGAATGTTGGTTTTAATACTTGATTTAATCACCCTCAAAAAAT  
GTTTGTAGTGCTCTTAAGGAACATCTCTGCTTTTACACTTTTAGAAATAATGGTCATTCGGGCTGGGCGACCGGCT  
CAGCCTGTAAATCCAGCACTTTGGGAGGCCGAGGTGAGCGGATCACAAGGTGAGGAGTTGAGACCCAGCCTGGC  
CAAGAGCAGCAGCTGGCCAGTATGGTGAACCCCTGTCTCTACTAAAAATACAAAAATAGCCGAGCATGGTGGCG  
GGCAGCTGTAGTCCAGCTACTCGAGAGGCTGAGGCAGGAGAATCTTGTAACCTGGGAGGCTGAAGGTTGCTGTG  
GGCAAAATCATGCCATTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTCAAAA

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**FIGURE 566**

MTLHEPANSSASQSTDLCDGSGDLDPAPNPPHFPFHVSHVIKATFAYISNCHKTKLKSILEILSKSPDSYQKILLAI  
EQAAETNNVYKKHRIKLIYHLFVSLLLKDIKSGLGGAWAFVLRDVIYTLIHYINQRPSCIMDVSLRSFSLCCDLL  
SQVCQTAVTYCKDALENHLHVIVGTLIPLVYEQVEVQKQVLDLLKYLVINDKDNENLYITIKLLDPFPDHVVF  
LRLTOQKIKYSRGPFSLLEEINHFLSVSVYDALPLTRLEGLKDLRRQLELHKDQMDVIMRASQDNFPQDGIMVKLV  
VNLLQLSKMAINHTGEKVELEAVGSCGLGEVGFIDFSTIAIQHSDKDASYTKALKLFEDKELQWTFIMLYTLNNTLV  
EDCVKRSAAVTCCKNILATKTGHFSWEIYKMTDPMLAYLQFPRTSRKKFLEVPRFDKENPFEGLDLDDINLWIP  
SENHDIWIKTLTCAFLDSGGTKCEILQLLKPMEVKTDQFQTVLPYLIHDILLQDNTNESWRNLLSTHVQGF  
LRHFSQTSRSTIPANLDSSEHEFFRCCLDKKSQRTMLAVVDYMRQKRPSSGTIFNDAFWLDLNYLEVAQVQSC  
AAHFTALLYAEIYADKKSMDDQEKRSALAFEEGSSQSTTISLSEKSEKETGISLQDLLLLIYRSIGEPDSLYCGG  
GKMLQPIITRLRTYEHAMWGKALVTYDLETAIPSSSTQAGIIQALQNLGLCHILSVYKGLDYEYENKDWCELEEL  
HYQAAWRNMQWDHCTSVSKEVEGTSYHESLYNALQSLRDREFSTFYESLKYARVKEVEEMCKRSLESVSYLYPTL  
SRLQAIGELESIGELFSRSVTHRQLSEVYIKWQKHSQLLKDDSDFSFQEPIMALRTVILEILMEKEMDNSQRECIK  
DILTKHLVELSILARTFKNTQLPERAIFQIKQYNSVSCGVSEWQLEEAQVFWAKKEQSLALSILKQMIKKLDASC  
AANNPSKLTYTECLRVCGNWLAEETCLENPAVIMQTYLEKAVEVAGNYDGESSDELNGMKMAFLSLARFSDTQY  
QRIENYMKSEFENKQALLKRAKEEVGLLREHKIQTNRYTVKVQRELEDELALRALKEDRKRFCKAVENYINC  
LLSGEEHDMWVFRCLCSLWLENSGVSEVNGMMKRDGMKIPTYKFLPLMYQLAARMGTMMGGGLGFHEVLNNLISRI  
SMDHPHHTLFIIILANANRDEFITKPEVARRSRITKNVPKQSSQLEDRTAEANRIICTIRSRPQMVRVSEAL  
CDAYIILANLDATQWKTQRKGINIPADQPIITLKNLEDVVVPTMEIKVDHTGEYGNLVTIQSFKAERLAGGVNL  
PKIIDCVGSDGKERRQLVKGRDDLQDQAVMQQVFQMCNTLLQRNTETTRKRRLTICTYKVVPLSQRSGLVWCTGT  
VPIGEFLVNNEDGAHKRYRPNDFAFQCKQKKMMEVQKKSFEEKYEVFMDVCQNFQPVFRYFCMEKFLDPAIWFEK  
RLAYTRSVATSSIVGYILGLGDRHVQNILINEQSAELVHIDLGVAFEQKILPTPETVPFRILTRIDVGMGITGV  
EGVFRRCCEKTEVMVRNSQETLLTIVEVLLYDPLFDWTMNPALKALYLQRPEDETELHPTLNADDQECKRNLSDI  
DQSFNKVAERVLMLRQELKGVVEEGTVLSVGGQVNLIIQQAIDPKNLSRLFPGWKANW

**FIGURE 567**

CGCGCCTCGGGCGGTACCCAGCCAGTCCCAGCGCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT  
ACCCGGGACCCAGCCCGGCCCTCGCCCGCAGCCCGCGGCCGCACACGTCCCGGAGCGGGCCCTAGGGCGGG  
CGGCAGCGCGGCTCGGCAGCTCAGGCTGGGCTCTGTAGCGTCCCCATGCGCCCGCGCGGCTGGCGGGACGGCT  
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTTCGGCGGGGCGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA  
TCCAGTCCTATTTTGTAAACGATTATGATCCAACCATTTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA  
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA  
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCAAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC  
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAAA  
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA  
TTAGGATGAATGTAGATCAAGCTTTCCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC  
CTTCACCAGAACCAACACGGAAGAAAGACAAAGAAAGGCTGCCATTGTGTATTTTCTAGAAATCCCTTCAGTT  
TTAGCTACCAACGGCCAGGAAAGCCCTCATCTTCTTCTCTCCTCAGTTTACATCTTGTGTGGTACCTTTCTA  
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG  
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCCTTTAAATATATGTCT  
ATATACACAGACATGCTCTTTTTTAAAGTGCTTACATTTTAATAGAGATGAATCAGTTTGGAAATCTAAGCTGTT  
TGCCAAGCTGAAGCTACAGGTTGTGAATAATTTTAACTTTTGGAAATCATACTGCCTACTGTTACTCTAAATAG  
AAATATAGGGTTTTTTTTTAATGTGAATTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAAACCTTAAA  
TACACTGAATTGAATCTACAAAGTGAACCATCTCAGACCTTTACTGATACACAACTTTTGTTTTCTGTATGGCC  
AAAAATACCAATGCCTGTTGTATTATATGGATTAATAAACTGCTTATAAAAAAAAAAAAAA

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**FIGURE 568**

MAAAGWRDGSQEKYRLVVVGGGGVGKSALTIQFIQS YFVTDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF  
GAMREQYMRITGEGFLLVFSVIDRGSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRVQTQEEGQQLARQLK  
VTYMEASAKIRMNVDQAFHELVRVIRKFQEQECPSPSEPTRKEKDKKGCHCVIF

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**FIGURE 569**

AAAATGTGCTTCTTACAGGAATATAAATAGTTTCTGGAAGGACACTGACAACCTCAAAGCAAAATGAAGTTCTT  
TCTGTTGCTTTTACCATTGGGTTCTGCTGGGCTCAGTATTCCTCCAAATACACAACAAGGACGGACATCTATTGT  
TCATCTGTTTGAATGGCGATGGGTTGATATTGCTCTTGAATGTGAGCGATATTTAGCTCCGAAGGGATTGGAGG  
GGTTCAGGTCTCTCCACCAATGAAAATGTTGCAATTTACAACCTTTTCAGACCTTGGTGGGAAAGATACCAACC  
AGTTAGCTATAAATATGCACAAGATCTGGAAATGAAGATGAATTTAGAAACATGGTGACTAGATGTAACAAATGT  
TGGGGTTCGTATTTATGTGGATGCTGTAATTAATCATATGTGTGGTAACGCTGTGAGTGCAGGAACAAGCAGTAC  
CTGTGGAAGTTACTTCAACCTGGGAAGTAGGGACTTCCAGCAGTCCCATATTCGGATGGGATTTCAATGATGG  
TAAATGTAAAACATGGAAGTGGAGATATCGAGAATACAAATGATGCTACTCAGGTGAGAGATTGTCGTCTGACTGG  
TCTTCTTGATCTTGCACTGGAGAAGGATTACGTGCGTTCTAAGATTGCCGAATATATGAACCATCTCATTGACAT  
TGGTGTTCGAGGTTTCAGACTTGATGCTTCCAAGCACATGTGGCTGGAGACATAAAGGCAATTTGGACAAACT  
GCATAATCTAAACAGTAACTGGTTCCCTGCAGGAAGTAAACCTTTCATTACCAGGAGGTAATTGATCTGGGTGG  
TGAGCCAATTAAGCAGTGACTACTTTGGTAAATGGCCGGTGACAGAATTCAGTATGGTGCAAACTCGGCAC  
AGTTATTCGCAAGTGAATGGAGAGAAGATGTCTTACTTAAAGAACTGGGGAGAAGTTGGGGTTTCGTACCTTC  
TGACAGAGCGCTGTCTTTGTGGATAACCATGACAATCAACGAGGACATGGGGCTGGAGGAGCCTCTATTCTTAC  
CTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGCTCATCCTTACGGATTTACACGAGTAAT  
GTCAAGCTACCGTTGGCCAAGACAGTTTCAAAATGGAACGATGTTAATGATTGGGTTGGGCCACCAATAATAA  
TGGAGTAATTAAGAAGTTACTATTAATCCAGACACTACTTGTGGCAATGACTGGGCTGTGAACATCGATGGCG  
CCAAATAAGGAACATGGTTATTTCCGCAATGTAGTGGATGGCCAGCCTTTTACAAATTTGGTATGATAATGGGAG  
CAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCATTGTTTTCAACAATGATGACTGGTCATTTCTTTAAC  
TTTGCAAACTGGTCTTCTGCTGGCACATCTGTGATGTCATTTCTGGAGATAAAATTAATGGCAATTCACAGG  
CATTAAATTTACGTTTCTGATGATGGCAAAGCTCATTTTCTATTAGTAACCTGTCTGAAGATCCATTTATGTC  
AATTCATGCTGAATCTAAATTGAAAATTTAAATTAATGCATGTCCTCAAACAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAA

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**FIGURE 570**

MKFFLLFTIGFCWAQYSPNIQQGRTSIVHLEFWRWVDIALECERYLAPKGFQVQVSPNENVAIYNFFRPWWE  
RYQPVSYKLCSTRSGNEDEFNMVTRCNNVGVRIYVDAVINHMCNAVSAGTSSTCGSYFNPGSRDFPVPYSGWD  
FNDGKCKTSGSDIENYNDATQVRDCRLTGLLDLALEKDYVRSKIAEYMNHLIDIGVAGFRDLASKHMPGDIKAI  
LDKLHNLNSNWFPAGSKPFIYQEVIDLGGEPIKSSDYFGNGRVTEFKYGAKLGTVIRKWNGEKMSYLNWGEWG  
FVPSDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGFMALHPYGFTRVMSYRWPQRFQNGNDVNDVWGP  
PNNNGVIKEVTINPDTTCGNDWVCEHRWRQIRNMVIFRNVDGQPFTNWDNGSNQVAFGRGNRGFIVFNDDWS  
FSLTLQTGLPAGTYCDVISGDKINGNCTGIKIYVSDDGKAHFSISNSAEDPFIHHAESKL

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FIGURE 571A

TCTAGATGGGGTCTTGGGCCCCAGGGTGTGCAGCCACTGACTTGGGGACTGCTGGTGGGGTAGGGATGAGGGAG  
 GGGAGGGGCATTGTGATGTACAGGGCTGCTCTGTGAGATCAAGGGTCTCTTAAAGGTTGGGAGCTGGGGCAGGGACT  
 ACGAGAGCAGCCAGATGGGCTGAAAGTGGAACTCAAGGGGTTTCTGGCAGCTACTACCTGCTTCCCGCTGGGG  
 GTGGGGAGTTGGCCAGAGTCTTAAAGATTGGGGCAGGGTGGAGAGTGGGCTCTCTGCTGCTTCCCACTCATCTTA  
 TAGCTTTCTTTCCCGAGATCCGAATTCGAGATCCAAACCAAGGAGGAAAGGATATCACAGAGGAGATCATGCTCTG  
 GGGCCCGCATGCTTCCACACCCACCCCTCCCGAGACGGGAGGCAGTCTGGAGCCTCAAGCTAATGGGGAGACGC  
 CCCAGTTGCTGTCTATTGTCCCGCAGATGACCGGTACAGGGAGCAATCATTGTCTGACCGCCAGGGCTGCTG  
 GCCAGAGCATAGCCCTTCAGAATCCAGCCTTCGTGCGCTTCTCCGACCCCATCACCATCCCCAGTCTTGGAAAG  
 CGGGTCTGAGCCTAATCTCGAGTCTCTCTATTCTTGGGACACTATGACAACTATACAAATGTCTGTAGAAG  
 AATCAACCCCATCTCCCGTAAACTGGGGAGCCATATCGCCTCTCCAGAACCCCATCTCTCGCCGAACCCA  
 TACTGGAAGTAGAAGTGACACTTAGCAAACCGGTTCCAGAATCTGAGTTTCTTCCAGTCTCTCCAGGCTCCCA  
 CCCCTTTGGCATCTCACACAGTGGAAATTCATGAGCCTAATGGCATGGTCCCATCTGAAGATCTGGAACAGAGG  
 TGGAGTCAAGCCAGAGCTTCTCTCCCCAGTCTGCCCTCCGAATCCCCGTGTGCCATTTGCTCCAAGTCCCC  
 AACCTGAGGAACCTGCTCAACGGAGCCCTTCCACCAGCTGTGGACTTAAGCCAGCTAGTGAGCAGAGGAGC  
 AGGCCAAGGAGGTGACAGCATCTAGTGGCGCCCCCACCATCCCTCTGCTACTCCAGTACGGCTCTCTCAGTATA  
 CTTCGCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAAGATGAGGAAGAAGGAGAAGTAGGGGAAGCAGGGGAAG  
 GTGAGAGTGAGAGAAGGAGGAGGAACTGCTCCCCCAGAGAGTACCCCTATTCCAGCCAACTTGTCTCAGAATT  
 TGGAGGCAGCAGCAGCCATCTCAAGTGGCAGTATCTGTGCCAAAGAGGAGACGGAATAATGAGGAGCTAAATAAGA  
 AGGAGGCTGTTGGAGACCTTCTGGATGCCTTCAAGGAGGCGAACCCGGCAGTACCAGAGGTGGAATAACAGCCT  
 CTGCAGGACGAATCCAGGCCAGAGTCTGAGGGCGAGTGGTGTGCCCCACGTCCTGAGGAAGCAGATGAGACCT  
 GGGACTCAAGGAAGACAAAAATTCACAATGCTGAGAACATCCAGCCCGGGGAACAGAAATGAATAAAGTACG  
 ATCAGTGGAAAGCTCCAAACCTAGAGGAGAAAAACGTTACGACCGTGAGTTCCTGTGTGGTTTTCAGTTCATCT  
 TTTGCCAGATGCAGAAAGCCAGAGGATTGCCACATATCAGTGACGTGGTGTGGCAAGGCCAATAAACCAC  
 TGGGCCACTGTAGTCCCATGAGCTACAAGGCATAAAATTGTGGCCAGACTTCACTCCATCTTGTGCCACCTTG  
 GCCGGACAAACCTTAGCACCCGTGGGCCCCCAAGGGGTGGGCCAGGTGGGGAGCTGCCCGTGGCGCGCAGGGCT  
 GCCTGGGACCCCGCGCTCTCAGCAGGGACCCCGAAAGAACCACGCAAGTATTGCCACAGTGTTAATGACCG  
 AAGATATAAACTGAACAAACAGAGAGAAAGCCTGGAAACCCAGCAGCAAGCGGACAGCGGCTGATAAGGATCGAG  
 GGGAAAGAAGATGCTGATGCGACAAACCCAGGACCTATTCCCGCAGGTGGCGCTCCATCTGTAATAACTGACAC  
 CCCAGATGTTCCAGCAGCTGATGAAGCAAGCTGACGACGTGGCCATCGACACCGAGACGCTCAAGGGGTCTAT  
 TGACCTCATTTTGTAGAAGGCCATTTCCAGAGCCCACTTCTCTGTGGCTATCCACATATGTCGCGTGCCTCATG  
 CGCGTGAAGTGCCTCACTACGGAAGGCCAACAGTGACTGTGAACCTCCGAAAGCTGTTGTTGAATCGATGTGAGA  
 AGGAGTTTGAGAAAGACAGAGATGATGATGAGGTTTGTGAGAAGAAGCAAAAGAGATGATGAATGAAGCTGTCACGG  
 CAGAGGAACGAGAACGCTGAAGGAGGAGCTGGAAGAGGCTCGGGACATAGCCCGGCGTGTCTTTAGGGAATA  
 TCAAGTTTATTGGAGAGTTGTTCAAACCTGAAGATGTTAAACAGAGGCAATAATGATGACTGTGTGGTCAAACCTGC  
 TTAAGAACCATTGACAGAGTCCCTGTAGTGCCCTTTGTGCTGCTACACCATCGTCCAAAGACCTGGACTTTG  
 AAAAAGCCAAGCCCCGAATGGATCAGTATTCAACCCAGATGGAAAAAATCATTAAAGAAAGAGACGTCATCC  
 GCATCCGCTTTATGCTGCAGGACGTGCTGGATCTCGCAGGGAGCAATTGGGTGCCACGCCGAGGGGATCAGGGTC  
 CAAGACCATTCAGACGATCCATAAGGAGGCTGAGATGGAAGACATCGAGAGACATCAAGATGCAGCAGCTATG  
 CAAGGGCAGTGACACGCTCGGGCGGTCTCCAGGCCCTCCCATCAGCCGTGGAATTCCTTGTGGATGATG  
 TGGCTGACACAGTTCCTCATCAGCAAAGGTAGCCGCCCATTTGACACTCAGACTCACCAAGATCCAAAGCTGCT  
 GCTCCATCGATTCTAACCAACAGCTCTTTGACCTTGGAGGGCAGTGAAGTGGGGCAGGAGCGAGCGAGGCT  
 CAGGAGCCAGCCCTCAGACGCGAGCTCAGAAGCTGCTCGCCAGCTACTAGTACTTTGATTCGCTTCTCAGCC  
 TTCAACAAGCGGTACCCACAGGAAGCACAGATAATAGCGTGTGTGTCAGAGGAGTAGCTTGAAGCCGAGAAGCAG  
 GCGAGAAGCTGGAGACCGAGAGGACCGCTAGAGCGAGTGAACGGGGAGGGGACCGTGGGGACCGGCTGTGATCG  
 GTGTCGGGGACCTGCTACCAAGCGGACGTTTCAGCAAGGAAGTGGAGGAGCGGATAGAGAAGCGCCCTCCAGC  
 CTGAGAGGCTGCGCAAGCGACTAGCTCAGGAGGATCGGGGGATGCGGTGAGAGCGAGAAGCTG  
 CTTACCCCCAGTAGGCCCTTGAAGGCGGCTCTCTCTGAGGAGGAGTTAGAGAAGAATCCAAGGCTATCATTTG  
 AGGAATATCTCCATCTAATGACATGAAAGAGGCAGTCCAGTGCCTGTCAGGAGCTGGCCCTCACCTCTTGTCTCT



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**FIGURE 571B**

TCATCTTTGTACGGCATGGTGTGAGTCTACGCTGGAGCGCAGTGCCATTGCTCGTGAGCATATGGGGCAGCTGC  
TGCACCAGCTGCTCTGTGCTGGGCATCTGTCTACTGCTCAGTACTACCAAGGGTTGTATGAAATCTTGAATTGG  
CTGAGGACATGGAAATTGACATCCCCACGTGTGGCTCTACCTAGCGGAACCTGGTAACACCCATTCTGCAGGAAG  
GTGGGGTGCCCATGGGGGAGCTGTTCAGGGAGATTCAAAGCCTCTGAGACCCTTGGGCAAAGCTGCTTCCCTGT  
TGCTGGAGATCCTGGGCCTCCTGTGCAAAAGCATGGGTCTTAAAAAGGTGGGGACGCTGTGGCGAGAAGCCGGGC  
TTAGCTGGAAGGAATTTCTACCTGAAGGCCAGGACATTGGTGCAATTCGTCGCTGAACAGAAGGTGGAGTATACCC  
TGGGAGAGGAGTCGGAAGCCCTGGCCAGAGGGCACTCCCTCCGAGGAGCTGAACAGGCAGCTGGAGAAGCTGC  
TGAAGGAGGGCAGCAGTAACACGCGGTGTTGACTGGATAGAGGCCAACCTGAGTGAGCAGATAGTATCCAACA  
CGTTAGTTCGAGCCCTCATGACGGCTGTCTGCTATTCTGCAATTATTTTTGAGACTCCCCCTCCGAGTGGACGTTG  
CAGTGCTGAAAGGCGACATAGTGCTGCAGAAATACCTGTGTGACGAAGCAGAAGGAGCTACAGGCGCTCTACGCC  
TCCAGGCCCTTGTAGTGACCTTAGAACAGCCTCCCAACCTGCTGCGGATGTTCTTTGACGCACTGTATGACGAGG  
ACGTGGTGAAGGAGGATGCCTTCTACAGTTGGGAGAGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGTGTGG  
CCCTTAAATCTGTACAGCCTTCTTCAAGTGGCTCCGTGAAGTCAGAGGAGGAGTCTGAACCAACTGAGGGCTG  
GTGGGGCCGGGGACCTGGAGCCCATGGACACACAGATGGCTCCGGCTAGCCGCCTGGACTGCAGGGGGCGGGCA  
GCAGCGCGCGTGGCAGTGGGTGCCGTAGTGTGATGTGCTGAACATAAAAGTGGCTGAAGAGGCAGGATGGCT  
TGGGGCTGCCTGGGCCCCCTCCAGGATGCCGCCAGGTGTCCCTCTCCTCCCTGGGGCACAGAGATATATTATA  
TATAAAGTCTTGAAATTTTGAAATTTGGTGTGCTTGGGGTGGGAGGGGCACCAACGCCTGCCCTTGGGTGCC  
TTTTTTTTATTTCTGAAATCACTCTCGGACTGCCGTCTCGCTGCTGGGCATATGCCCCAGCCCTGTACCAC  
CCCTGCTGTTGCCGTGGCAGGGGGAAGGGGGGCACGGTGCCGTGAATTATTAACATGAATTC AATT

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**FIGURE 572**

MSGARTASTPTPPQTGGSLFPQANGETPQVAVIVRPDDRSGAIIADRPGLPGPEHSPSESQSPSPSPPTSPSPSPV  
LEPGSEPNLAVLSIPGDMITTIQMSVEESTPISRETGEPYRLSPEPTPLAEP ILEVEVTLSKVPPESEFSSSPLQ  
APTPLASHTVEIHEPNGMVPSEDLPEVESSPELAPPPACPSESPVP IAPTAQPEELLNGAPSPPAVDLSPVSEP  
EEQAKEVTASVAPPTIP SATPATAPSATSPAQEEEMEEEEDEEEGEVGEAGEGESEKRGEELLPPESTPI PANLS  
QNLEAAAAATQVAVSVPKRRRIKELNKKEAVGDLDAFKEANPAVPEVENQPPAGSNPGPESEGGVPPRPEEAD  
ETWDSKEDKIHNAENIQPGEQKYEYKSDQWKPPNLEKKRYDREFLLGFQFIFCQMOKPEGLPHISDVVLDKANK  
TPLRLDPTRLQGINCGPDFTPSFANLGRITTLSTRGPPRGPGGELARGAQAGLGPRRSQGGRKEPRKI IATVL  
MTEDIKLNKAERKAWKPSKRTAADKDRGEEDADGSKTQDLFRRWRSILNKLIPTQMFMQQLMKQVTQLAIDTEDASK  
GSLTSFLRRPFQSPSTLWPTIQHVPLPHGAESAHYGKPTVTVNFRRKLLNRCQKEFEKDKDDDEVFEKKQKEMDEA  
ATAEERERLKEELEEARDIARRCSLGNIKF IGELFKLMLTEAIMHDCVVKLLKNHDEESLECLCRLLITIGKDL  
DFEKAKPRMDQYFNQMEKIIKEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPRLTRSI RRLRWKTSRAHQSA  
AHARAVTSVGAVLQALPSAVDFPLMMVADTVPI SKGSRPIDTSRLTKITKPGSIDSNQLFAPGGRLSWGKGSS  
GGSGAQPSDAASEAARPATSLIRFSALQQA VPTSTDNRRVVQRSSLSRERGEKAGDRGRRLERVNGEGTVGTG  
LIVSRTPATKRITFSKEVEERSRERPSQPEGLRKAASLTEDRDRGRDAVKREAA LPPVSPLKAALSEEELEKKS  
KAIIEEYHLHNDMKEAVQCQELASPSLLFIFVRHGVESTLERSAIAREHMQLLHQLLCAGHLSTAQYQGLYEIL  
ELAEDMEIDIPHVWLYLAELVTPILQEGGVPMGELFREITKPLRPLGKAASLLEILGLLCKSMGPKKVGTWRE  
AGLSWKEFLPEGQDIGAFVAEQKVEYTLGESEAPGQRALPSEELNRQLEKLLKEGSSNQRVFDWIEANLSEQIV  
SNTLVRALMTAVCYSAIIFETPLRVDVAVLKGDIVLQKYLCD EAGATGALRLQALVVTLEQPPNLLRMFFDLY  
DEDVVKEDAFYSWESSKDPAEQQKGVALKSVTAFFKWLREVRGGV

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FIGURE 573

GGTAAGAGAAGACTGGAAGC**ATG**TCGGAGTTTGGTTAAATTTCTGCCCTGGCGATAAGGAAAAATTGCAAGCTC  
TGGAGAGGATGAATACTGTAACTCCAAGTCCAACCTGTCTTATAATACCAAAATTCGCTATTCTGACTTCAAGG  
TGGGGACCTTGGATTCCCTGTTGGGCTCTCTGATGAGTTGGGGAAACTCGACACCTTTGCTGAAAGCCTCATAA  
GGAAATGGCTCAGAGCGTGGTGGAACTGAGGAGCTCAAAGGGGAAGGTCCAGGAGCACCTCTTGCAAAACG  
GAGTTGACTTAACATCCTTTGTGACCCACTTTGAATGGGACATGGCCAAATATCCTGTCAAGCAGCGCTCGTGA  
GTGTGGTGGACACAATAGCCAAAGCACTGGCGCAGATCGAGATGGACCTGGAAGTCCCGAACGGCGCCCTACGACA  
CTCTGAAGACAACCTGGAGAACCTGGAAGAAATCCATGGGGAACCTCTCACCCGGACACTGAGTGATATTG  
TGAGCAAGAGGAGACTTCGTGCTGGATTCTGAATATCTCGTCACACTTCTGGTCATCTGCCCAACCAAACTACT  
CACAAATGGCAAAAAACCTACGAATCTCTCTCAGACATGGTGGTCCCTCGATCAACCAAACTCATTACTGAGGACA  
AGGAAGGGGGCTTTTCACTGTGACTCTGTTTCGAAAAAGTGATTGAAGATTTCAAAACCAAGGCCAAAGAAAAACA  
AGTTCACCTGTTCTGTAATTTTACTATGATGAGAAGAAATGAAAGGGAAAGGGAGAGATGGCCAGATTGCTGT  
CTGATAAGAAGCAACAGTATGGCCCCCTGCTGCGCTGGCTCAAGGTGAACCTCAGTGAAGCCTTCATTGCGCTGGA  
TCCACATCAAGGCCCTGAGAGTGTTTGTGGAGTCCGTGCTCAGGTATGGACTACCAGTGAACCTCCAGGCAGTGC  
TCCTGCAAGCCGATAGAAGTCTACCAACAGCGTTTAAAGAGAGTTCTAAACTCTGTCTCCGACATCTGGATG  
AAGTAGCCGCTACAAGTATACGTGATGCTCTGTGGAGATCCCGGACTGCAACTCAATAACCAAGACTATTTTC  
CTTATGTCTACTTCCATATTGACCTTAGTCTTCTTGACT**TAGA**AAGGCCAGCTGGCACCTCTGTCTCATGTTCTGTG  
CAGATTATTACAGACACCTCTTTCCCTTAGCCAGAGAATGGTCAAATGCTTTACAGAACTAAGATCTTTTTCAG  
AGAAATTGCTCACAAAAGTTAGTGACAGTTGATTTATTTTTTAAAGTTACAATAAAATGCTCTCAAGTCCTTTG  
AATGTTCCAACAAATTCAAAACCTTCATTTTCTGAATGTTTACATAAATGCGAACTACCTGTTGCGATTGGTAAC  
CTGCTGCTGTATTTTCATGTCTTAAACGGCTATTTTGAGGTTCTTAACAACATAGAAAAGCCTTGAACGTGATAAAC  
AGCTAGATTCTTTAATAATTAGTCACTAGAGACAGCCCAAAGACAATATTGGGCAGGAAATCAGTTCTCATGTA  
GCCCGGTTTCCATGTAAATCTCTGTTGTGGTGGGCATAGGTGGCACCATCTAAAGAAAAGAGGCTCTGTTTTTT  
GTTTAAAAAAGTTTGTGGGGAGGAAAGACATCTGTGTATCACTTCAAAATATTGATTACTGCTAAACATCACTC  
TGAATTTATGTGTGGATACTAATCTCATACATTTATCGGCATTGTCCAAAATATTTTATTCTTTAATGGAAAAA  
GCCATTAATATTCAAATGAAGGGATCAGATTAATAAAAAACCCATACATAAGAAACAGCCTCCAAGAACATTCAG  
CAGCAGTCAGAGAGAAAAATGTTTCGACAGCCAAGTTTTCTTCAAAATATTATGTGACAGAAATACGACTCAATTC  
ACCGGCTACAACAATTATAGAATTTTCAATGTTTCTTGAGATGCAAAAGTTCACTGTTGCACTGTTTTCAAA  
TGACCAATCAAGTACTACTTCTTGGTTAAAGGCCACTGGTAGAGTCACTCTGAGTGTAGAGAAATGTCCTTCACT  
GCTGGAATAATCCACTGGCTCCCAAGAAAAGAAAATGGTCTGAAGCCTCTGTTGGGCTCTCAACACTCATCTTT  
CCCTAAGTCATCAAGCTCCACATCACTGAGGTCAATGTCACTCCACGGGAAGCTGGGAGACGACAGAAAGCCA  
CTGTTAGATCTGCAAGGGGACACCTCGGAAGGTCAACATCTCATTTTATGGAAGAGCGACTCTCTGGAGCTAC  
TCCTGTACATACTCAGGTTCTCCTCAGTCTGACTCCTACCTGACCTCTGATGATGATATACCGGATGGAAAA  
GCTCAGAACTCAGGTGAACATTTCAACATCACATCACTCACCATTTTAACACTGGAAGCCACTTGAACGTGTCC  
TTTTGAGGAGGTTGGGACACAACAGTACAGAAATAAGTGCTAATTTCAAAAGCTATCATTTTCTATTTTCTAAGA  
TAAAGTAAATGAATCCAGGTTAAAGTTTCACTTTAAGGTAAATAATCAGGAAGCAACCTTACTACTGAAATGTGA  
TCTTGGCTGTCAAGAGTATCAAAATGCCATGCAGCACTTAAACTTGTGATAAGGAAGATGAAGGGTCTTCAGAGAA  
GAACCTCTTAAAGGGCCACGGGTGCACAGGGCTGAGGCTGATGGGAAGGACTTGACTCCAGGTGCAGAGATG  
CACAGGCTCAAGAGAGTAAACAGGACTGCTGCCGCACAGCTTCCTCCGGGCACTACCTTCGCCATCCCTGCG  
CGTCCCAGGCTCTCTCAACGATGTTAGGGAAAGCCCGCTCCTACAGGTGCCGTGGAGGCCAGCCCCAAAAG  
AGAGCTCCCTTAGGAAAAATGACCAAAACACACACATTTACAATGGACTGCTGGTGCAGAGAATAAACA  
ACTTTAAAAATAAAAAA

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**FIGURE 574**

MSEFWLISAPGDKENLQALERMNTVTSKSNLSYNTKFAIPDFKVGTLDSLVLGLSDELGKLDTFAESLIRRMAQSV  
VEVMEDSKGKVQEHLLANGVDLTsfvthFEWDMakYPVKQPLVSvVDTIAKQLAQIEMDLKSRTAAYDTLKTnLE  
NLEKKSMGNLFTRTLSDIVSKEDFVLdSEYLVtLLVIVPKPNYSQWQKTYESLSDMVVPRSTKLITEDKEGGLFT  
VTLFRKVIEDFKTKAKENKFTVREFYYDEKEIEREREEMARLLSDKKQOYGpLLRWLKVNFSEAFIAWIIHICALR  
VFVESVLRyGLPVNFQAVLLQPHKKSSTKRLREVLNSVFRHLDEVAATSILDASVEIPGLQLNNQDYFFYYVFHI  
DLSLLD

## FIGURE 575

AGATCTGAATCCAGAGGCTCTCGGAGGAAGAGCTCAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGACATGGC  
CGACACCCCCAGAGATGCCGGGCTCAAGCAGGCGCCTGCATCAGGAACGAGAAGGCCCGGTTGAGCTTCGGCTA  
CGTGGGGATTGACTCCATCTCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGT  
GGTCGGGCAGAGCGGCTTGGGTAATCCACCTTAATCAACACCTCTTCAAATCCAAAATCAGCCGGAAGTCGGT  
GCAGCCCACTCAGAGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCAGCACGATATTGAGGAGAAAGG  
CGTCCGGATGAAGCTGACAGTGATTGACACACCAAGGTTTCGGGGACCACATCAACAACGAGAATGCTGGCAGCC  
CATCATGAAGTTTCATCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCCAT  
CCCGGACACCCGCTCCACTGCTGCCCTTACTTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCTGGAGCAGAA  
AGTGCCTTTATCTCAGCCATCCGCAGACTGCTCGGCCAGATGCGGGGACAGGCTGGAAATGAGGAGGCGCTTCA  
TCTCCCTGCCATCCCCCTCTCACGCCACCCCGCCCCACC GGCTGCAGGTGCTGCTGATGCGCTGGGATCTGA  
TTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCATCCCCAGTTTTGAAGAGGTCTAAGCAAGTGAGT  
CTGGTGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGG  
CTTGGGCTGGTCAGAGTGGCGTGAGCTGCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAGTGTGTGTGTGCC  
ATGTGTATGCGTGTCCGCTGTCTGTCTAGTGTCTGGGTTTGGCCCCAAGACTGGGCTGTAGTTACATTAATGCCC  
AGCCAGCCACCCCTGCCACTACCCCTCCTGGCCAGGCCTTGCTGACTCTCTGAGCTGGGAGGTTGGGAGGCCA  
GGCGAGCCTGACTCTGTTGATCTACCCGTGCCCTGGGCCCCCTCCCTCAGAGCCCATGGTAACGAACCCCTAGAAA  
GGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCACGGCCCCGGCCCCCT  
ACCCCTGTGCCCCACGAGGGGACCCATGGGGGCTGTCTTTGCAGGGCAGAGATGACCAAAGTCCCTTCTGTCTTC  
CTGTTACCTGTCTTGTCTCCTGGGGAGAAAAGGGGGCTGTATGAGACTCCACTCAGGTGCACACATCACCAGGTGC  
ATCTGCAGGCACCGGGCTGGCTGCTTGACAGCCAGGAGAAGGTACGCGAGAAGGAGTGTATGAGTGTGAGTGTGTG  
TGCAATGGAAGTTGGGGCACTGGCGCTCTGACTCCCTCCCCACCAAGAGAGGAAGGACCCCTCACCACCCCACT  
GGCGAGACAGTTTACTTTGGCGACTTGGCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAATGAGTGCCAGCG  
CCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCACTTGGTGGCGGGGTGGGTGGGGGTGGGCAGCAGC  
ATCCCAGCCTTGAGATGCTTCACTTTCCCTTCTCTGTAACCAGACTTGAAGAAATGTTGCTTTCATCAGGCTCTG  
TTCCTCAATGGCCTTTTGCTACGTGCCCTCCCGAGAAATTTGTCTTTTGTATAAATGACAAAGTGTGAAAATGT  
ATTTCCTGAATAAATGTTTCAATGC

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**FIGURE 576**

MADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTLFKSKISRK  
SVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPIMKFINDQYEKYLQEEVNINRKK  
RIPDTRVHCCLYFIPATGHSLRPLEQKVPLSQPSADCSARCGDRLE

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**FIGURE 577**

GTTCCTGCGCTGGTGTGCGGTGGTTAGTTTCTGCGACTTGTGTTGGGACTGCTGATAGGAAGATGTCCTCAGGAAAT  
GCTAAAATTGGGCACCCCTGCCCCAACTTCAAAGCCACAGCTGTTATGCCAGATGGTCAGTTTAAAGATATCAGC  
CTGTCTGACTACAAAGGAAAAATATGTTGTGTTCTTCTTTTACCCTCTTGACTTCACCTTTGTGTGCCCCACGGAG  
ATCATTGCTTTTCAGTGATAGGGCAGAAGAATTTAAGAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCT  
CACTTCTGTCATCTAGCATGGGTCAATACACCTAAGAACAAGGAGGACTGGGACCCATGAACATTCCTTTGGTA  
TCAGACCCGAAGCGCACCATTTGCTCAGGATTATGGGGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTT  
TTTATCATTGATGATAAGGGTATTCTTCGGCAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAG  
ACTTTGAGACTAGTTCAGGCCCTCCAGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGGAAACCTGGC  
AGTGATACCATCAAGCCTGATGTCCAAAAGAGCAAAGAATATTTCTCCAAGCAGAAGTGAAGCGCTGGGCTGTTTT  
AGTGCCAGGCTGCGGTGGGCAGCCATGAGAACAAAACCTCTTCTGTATTTTTTTTTTCCATTAGTAAACACAAG  
ACTTCAGATTACGCCGAATTGTGGTGTCTTACAAGGCAGGCCTTCTTACAGGGGTGGAGAGACCGCCTTTCT  
TCCTTTGGTAGGAATGGCCTGAGTTGGCGTTGTGGCAGGCTACTGGTTTGATGATGTATTAGTAGAGCAACCC  
ATTAATCTTTTGTAGTTTGATTTAAACTTGAAC TGAG

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**FIGURE 578**

MSSGNAKIGH PAPNFKATAVMPDGQFKDISLS DYKGKYVVFFYP LDFTFVCPT EIIAFSDRAEEFKKLNCQVIG  
ASVDSHFCHLAWVNTPKKQGG LGPMNIPLVSDPKRTIAQDYGV LKADEGISFRGLFIIDDKGILRQITVNDLPVG  
RSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK



## FIGURE 579

GTCACTCGTATAAAAAACCTATGCTTTGAAAGGTTCTCGTGTGCTCGGCCTGCAGGTTCTCGCTCAGAGCTGTGTCC  
CTGAACATCCACCCCTGCTGGGGTGGCTTGACGCACTTCTGTGCAAACTGTGTCGCTCGCAACCCCTACCTACCTCT  
CTCCCGAACCGGAGAAAACTTCGGCGGGGTCCTTCGGGGTTTTGTGTGCAATCTGCGCGCGGACCCGCGCGCG  
CGTCACGCGGTGGTGAATGTGCGCGCAGTACGCGCGCCGCGTCTGTACGCGGCGATTTCACTCATGCTCCGAGCCG  
GCGCGCGCGCGCTTCCGTGCGCACCCCTCTCTGGACAGCCAGGGCGCCAGGGCTCATGCCCTCTCCGCGTCCAG  
TGCTGCTTAGAGGTTGCTCGCGCCGCTCTGCTGCTGCTGCTGCCGCCCGGGCTTTAGCCCGACCCCTCGCTCTCTCC  
TCCGCGGGTCCCTCAGCGCGGCTCTCTGCGCCCGATCTCCTTGCCGCGCGCGCTCCCGGAGCAGCATGACG  
GCGCGGGGGCTGAGGAGGTGCTGGCACCTCTGAGGCTAGCAGTGCGCCAGCAGGAGATCTTGTGCGAAAACTCA  
AAGAAGATAAAGCACCCCAAGTAGACGTAGACAAAGCAGTGGCTGAGCTCAAAGCCCGCAAGAGGGTTCTGGAAG  
CAAAAGAGCTGGCGTTACAGCCCAAGATGATATTGTAGACCGAGCAAAATGGAAGATACCCCTGAAGAGGAGGT  
TTTTCTATGATCAAGCTTTTGCTATTTATGGAGGTGTTAGTGGTCTGTATGACTTTGGGCCAGTTGGCTGTGCTT  
TGAAGAACAATATTATTCAGACCTGGAGGCGACACTTTATCCAAGAGGAACAGATCCTGGAGATCGATTGCACCA  
TGCTCACCCCTGAGCCAGTTTTAAAGACCTCTGGCCATGTAGACAAATTTGCTGACTTCATGGTGAAGACGTAA  
AAAATGGAAGATGTTTTCTGCTGACCACTCTATTAAGCTCATTACAGAAATTGATGCTCGATAAGAAGTGT  
CTGTGCAAAAAGAAATCAGAAATGGAAGTGTTTTGGCCAGCTTGATACTATGGACAGCAAGAATCTGGCGATC  
TTTTTGTGAACTATAATGTAAAACTCCCAATTACTGGAATGATCTATCCCTCCAGTGTCTTTAACTTAATGT  
TCAAGACTTTTATGGGCTGGAGGAAACATGCCTGGGTACTTGAGACCAGAACTGCACAGGGGATTTTCTTGA  
ATTTCAAACGACTTTTGAGTTCAACCAAGGAAAGTTGCTTTTGTGCTGCCAGATTGGAATTTCTTTTAGAA  
ATGAGATCTCCCTCGATCTGGAGTATGATCAGAGTCAGAGAATTCACAATGGCAGAAATGAGCACTTTGTAGATC  
CCAGTGAGAAAGACCACCCCAAGTTCAGAAATGTGGCAGACCTTCACCTTTATTTGTATTACGAAAAAGCCGAG  
TCAGCGGACAGTCCCTCGGAAAAATGCGCTGGGAGATGCTGTTGAACAGGGTGTGATTAATAACACAGTATTAG  
GCTATTTTATTGGCCGCACTACCTCTACCTCACGAAGTTGGAATATCTCCAGATAAACTCCGCTTCCGCGAGC  
ACATGGAGAATGAGATGGCCCATATGCTGTGACTGTTGGGATGCAGAAATCCAAACATCCTACGGTTGGATTG  
AGATTGTTGGATGTGCTGATCGTTCTGTTATGACCTCTCCTGTCAAGCAGGCCACCAAGTCCCACTTGTAG  
CTGAGAAACCTCTGAAGAAACCCAAACAGTCAATGTTGTTCAAGTTCAGTTGAACCCAGTAAGGGAGCAATTGGTAAGG  
CATATAAGAAGGATGCAAACTGGTGATGGAGTATCTTGCCATTTGTGATGAGTGCTACATTACAGAAATGGAGA  
TGCTGCTGAATGAGAAAGGGGAATTCACAATTGAAACTGAAGGGAACAAATTCAGTTAACAAGACATGATCA  
ATGTAAGAGAGATTCAGAAAACTATATGTGGAAGAAGTTGTTCCGAATGTAATTGAACCTTCTTCCGCTGG  
GTAGGATCATGTATACGGTATTGAACATACATTCATGTACGAGAAGGAGATGAACAGAGAACATTCTTCAGTT  
TCCCTGCTGTAGTTGCTCCATTCAAATGTTCCGCTCTCCCACTGAGCCAAAACAGGAGTTTCAATGCCATTTGTCA  
AGGAATTTATCGGAAGCCCTGACCGAGCATGGAGTATCTCAAAAGTAGACGATTCCTCTGGGTCAATCGGAAGGC  
GCTATGCCAGGACTGATGAGATTTGCGGTGGCTTTTGGTGTCAACATTGACCTTGACACAGTGAACAGAACCCCC  
ACACTGCAACTCTGAGGGACCGTGACTCAATGCGGCAGATAAGAGCAGAGATCTCTGAGCTGCCAGCATAGTCC  
AAGACCTAGCCAATGGCAACATCAGATGGGCTGATGTGGAGGCCAGGTATCCTCTGTTTGAAGGGCAAGAGACTG  
GTAAAAAGAGACAATCGAGGAATTCAGGACAATTTGACAACCTTTGACCACTTCGGCTAATAAAAAAATAAAAA  
CTACTCTTATGTCCACTTTACAAAAGAAAAAGCATTGTGATTACTCCAGGACCGTATTTTATCTTCAGTGGC  
TGCTGATTTTACCCCAATTAAGTTGAAGGAATCCTGA

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**FIGURE 580**

MDGAGAEVLAPLRLAVRQQGDLVRKLKEDKAPQVDVDKAVAEKARKRVLEAKELALQPKDDIVDRAKMEDTLK  
RRFFYDQAFAYIGGVSGLYDFGPVGCALKNNIIQIWRQHF IQEEQILEIDCTMLTPEPVLTSGHVDKFADFMVK  
DVKNGECFRADHLLKAHLQKLMSDKKCSVEKKSEMSVLAQLDNYGQQLADLFVNYNVVKSPITGNDLSPVVSFN  
LMFKTFIGPGGNMPGYLRPETAQGIFLNFKRLLLEFNQGKLPFAAAQIGNSFRNEISPRSGLIRVREFTMAEIEHF  
VDPSEKDHKPFQNVADLHLLYLSAKAQVSGQSARKMRLGDAVEQGVINNTVLGYF IGRIYLYLTKVGISPKDLRF  
RQHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPLVAEKLPEKPKTVNVVQFEPESKGA  
GKAYKKDAKLVMEYLAICDECYITEMEMLLNEKGFTIETEGKTFQLTKDMINVKRFQKTLVVEEVVNPVIEPSF  
GLGRIMYTVFEHTFHVREGDEQRTFFSFPVAVAPFKCSVLPLSQNQEFMPFVKELSEALTRHGVSHKVDDSSGSI  
GRRYARIDEIGVAFGVTIDFDTVNKPHTATLRRDSDMRQIRAEISELPSIVQDLANGNITWADVEARYPLFEGQ  
ETGKKETIEE

## FIGURE 581

GTAGGAGGACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGCGGATCGTCCCCAGGTTCTCAGAGCTCACA  
GCCGAGAAGCTGGGCTTTGCTGGTCTTGACAGGAGATCTCATTGGGACAACCTAAGGATAAAATGCTGGTCATC  
GAGCAGTGTAAAGAACTCCAGAGCTGTAACCATTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAA  
CGATCCCTTCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCT  
GCTGAGATATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGA  
GCGTTTGCCGACGCACTGGAGGTCAATCCCATGGCCCTCTCTGAAAACAGTGGCATGAATCCCATCCAGACTATG  
ACCGAAGTCCGAGCCAGACAGGTGAAGGAGATGAACCTGCTCTTGGCATCGACTGTTTGACAAGGGGACAAAT  
GATATGAAGCAACAGCATGTCTAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGT  
AGAATGATTTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAATGAAAGACATTGAGAAAACTATGTA  
GCAAGATCCACTTCTGTGATTAAGTAAATGGATGCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTT  
CCAGACACTGTAGATGCTATAATAAAAAATAGCTGTTGGTAACCATAGTTTCACTTGTTCAAAGCCGTGTAATCG  
TGGGGGTACTATCTCAACTGCTTTTGTATTGATTGATTAATAAAGAATCTGTTTAAGCAAAAAAAAAAAAAAAAAA  
AAAAAA

**FIGURE 582**

MLVIEQCKNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIRDNRVYGGGAAEISCALAVSQEADKCPTLEQ  
YAMRAFADALEVIPMALENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTNDMKQQHVIENTLIGKKQISLA  
TQMVRMILKIDDIRKPGSEEE

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**FIGURE 583**

AATTCTGGGGGCGGTGGAGTTTGTGACATACAGGGTGACACCCCTCGAGTCACTTCCCTTCAACTCCAGCTGGAGC  
GCCTGCTTGGCTTTGGGTTTGGTTCTGCAGCCTTCGCCCGCTCCTAGCCTCAGGGCCGGACTCCAGCGCAGAGCC  
CAGCCACGCGCAGCCTGCCAGCAGCCACCCAGCGCCCGAGCCGCCAGCCGCAAGAAACCCGGCCAGAGCTTC  
CTAGCAGCCCGAGCCATGAACACCGAAATGTATCAGACCCCATGGAGGTGGCGGTCTACCAGCTGCACAATTC  
TCCATCTCCTTCTTCTCTTCTCTGCTTGGAGGGGATGTGGTTTCCGTTAAGCTGGACAACAGTGCCTCCGGAGCC  
AGCGTGGTGGCCATAGACAACAAGATCGAACAGGCCATGGATCTGGTGAAGAATCATCTGATGATGCTGTGAGA  
GAGGAGGTGGAGATCCTGAAGGAGCAGATCCGAGAGCTGGTGGAGAAGAACTCCAGCTAGAGCGTGAGAACACC  
CTGTTGAAGACCCTGGCAAGCCAGAGCAGCTGGAGAAGTTCAGTCTGTCTGAGCCCTGAAGAGCCAGCTCCC  
GAATCCCCACAAGTGCCCGAGGCCCTTGGTGGTTCTGCGGTGTAAGTGGCTCTGTCTCAGGGTGGGCAGAGCCA  
CTAAACTTGTTTTACCTAGTCTCTTTCCAGTTTGTTTTGGCTCCCCAAGCATCATCTCAGGAGGAACCTTTACA  
CCTAGCACAGCTGGTGCCAAAGAGATGTCTTAAGGACATGGCCACCTGGGTCCACTCCAGCGACAGACCCCTGACA  
AGAGCAGGTCTCTGGAGGCTGAGTTGCATGGGGCCTAGTAACACCAAGCCAGTGAGCCTCTAATGCTACTGCGCC  
CTGGGGGCTCCCAGGGCTGGGCAACTTAGCTGCAACTGGCAAGGAGAAGGGTAGTTTGAGGTGTGACACCAGT  
TTGCTCCAGAAAGTTTAAGGGGTCTGTTTTCTCATCTCCATGGACATCTTCAACAGCTTCACCTGACAACGACTGT  
TCCTATGAAGAAGCCACTTGTGTTTTAAGCAGAGCAACCTCTCTCTCTCTGTTTCGTGAAGGCAGGGGAC  
ACAGATGGGAGAGATTGAGCCAAGTCAGCCTTCTGTTGGTTAATATGGTATAATGCATGGCTTTGTGCACAGCCC  
AGTGTGGGATTACAGCTTTGGGATGACCCGCTTACAAAGTTCTGTTTGGTTAGTATTGGCATAGTTTTTCTATATA  
GCCATAAATGCGTATATATACCCATAGGGCTAGATCTGTATCTTAGTGAGCGATGTATACATATACACATCCAC  
CTACATGTTGAAGGGCCTAACAGCCTTGGGAGTATTGACTGGTCCCTTACCTCTTATGGCTAAGTCTTTGACTG  
TGTTCAITTTACCAAGTTGACCCAGTTTGTCTTTTAGGTTAAGTAAGAACTCGAGAGTAAAGGCAAGGAGGGGGC  
CAGCCTCTGAATGCGGCCACGGATGCCTTGTGCTGCAACCCTTTCCCGAGCTGTCCACTGAAACGTGAAGTCTCT  
GTTTTGAATGCCAAACCCACCATTCTAGTGCTGACTACATAGAATGGGTTGAGAGAAGATCAGTTTGGGCTTC  
ACAGTGTCATTTGAAAAAGCGTTTTTGTGTTTTGTAATATTATTGTGGAACAACTTCAAGTGAACAGAAGGATGG  
TGCTCTACTGTGGATGAGGGATGAACAAGGGGATGGCTTTGATCCAATGGAGCCTGGGAGGTGTGCCCAAGAAC  
TTGCTGTAGCGGGTTTTGTGAGAGTGAACACTTTCCACTTTTTGACACCTTATCCTGATGTATGGTTCCAGGAT  
TTGGATTTTGATTTTCCAATGTAGCTTGAATTTCAATAAACTTTGCTCTGTTTTCTAAAAATAAAAA

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**FIGURE 584**

MNTÉMYQTPMEVAVYQLHNFSISFFSSLLGGDVSVKLDNSASGASVVAIDNKIEQAMD LVKNHLMYAVREEVEI  
LKEQIRELVEKNSQLERENTLLKTLASPEQLEKFSCLSPPEEPAPESPQVPEAPGGS AV

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FIGURE 585

GACGTTTCGCGCCAATTTTCGGTTGGCCGGCCACAGTCCACGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC  
CCTCTGAGCCCGCCAAAGCGCGGCCGACGGCCCTCGGCAGCGCATGSCACTGAAGGACTACGCGCTAGAGAAGGAAA  
AGGTTAAGAAGTCTTTACAAGAGTTCTACCAGGATGATGAACCTCGGGAAGAAGCAGTTCAAGTATGGGAACAGT  
TGGTTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT  
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGTCTGATGCCGTACAAGAGCTGCTGCCTC  
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCTCGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC  
GGAGTCGGGACCTTGGGATGGTCCGAAGCCCCAGAACCAGTACCCTGCTGAACCTCATGCGCAGATTTGAGCTGT  
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA  
CTGTGCGTGGAAATCGTCACTCGTGTCTCTGAAGTCAAACCCAGATGGTGGTGGCCACTTACACTTGTGACCAGT  
GTGGGCGAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCTCTGATCATGTGCCCAAGCCAGGAGTGGC  
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTTCATCAAATTCAGGAGATGAAGA  
TGCAAGACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGTGTTAGAGGAGAGAACA  
CAAGGATTGCCAGCCTGGAGACCAGTCAAGCTCACTGGTATTTTCTTGGCAATCCTGCGCACTGGGTTCCGAC  
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG  
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG  
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGTGCTCTGCTAGTCTGGGGGTG  
TGGACCACTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA  
AGTCTCAGCTCTGTCTACATATTGATGACTGGCGCTCGCAGCCAGTACACAACAGGCGGGGCTCCTCAGGAG  
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAAGTACCTTAGAGGGTGGGGCCCTGGTGTCTG  
CTGACCAAGGTTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCGCCAGCCGACAGCCATCCACAGGTC  
TGGAGCAGAGACCATCTCCATTGCAAGGCCGGCATTCTCACCACACTCAATGCCCGCTGCTCCATCCTGGCTG  
CCGCCAACCTGCCTACGGGCGCTACAACCTCGCCGACGCTGGAGCAGAACATACAGTCACTGCTGCACTGC  
TCTCCCGTTTGACCTCTCTGGCTGATTCAAGACCGGCGCCGACCCGAGACAATGACCTACGGTTGGCCAGCACA  
TCACCTATGTGCACCAAGCAGCCGGCGAGCCCCCTCCCACTTTGAACCTCTGGACATGAAGCTCATGAGCGCT  
ACATAGCCATGTGCCGCGAGAAGCAGCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTTG  
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACCTCTGCCCCGACCTGCTGGCTATCTGCGCC  
TTTCCACTGCTCTGGCAGCTCTGAGAATGGTGGATGTGGTGGAGAAGAAGATGTGAATGAAGCCATCAGGCTAA  
TGGAGATGTCAAAGGACTCTCTCTAGGAGACAAGGGGCGAGCAGCTAGGACTCAGAGACCAGCAGATGTGATAT  
TTGCCACCGTCCGTGAATGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCGAGCAGCGCTGTGTATCTC  
GTGGCTTACACCCCGCCAGTTCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT  
CCCGGACACGGATCACTTTTGTCTGATTTCCAGCCTGCTTGCAACCTCGGGGTCCTTGTTCCTGCTGGCCTGC  
CCCTTGGGAAGGGCAGTGATGGCTTTGAGGGGAAGGAGGAGCCCCCTTTCTCCCATGCTGCACTTACTCCTTT  
TGCTAATAAAGTGTTGTAGATTGTC

**FIGURE 586**

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK  
LFADAVQELLPQYKEREVVNKDVLVDVYIEHRLMMEQSRSDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR  
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDCGAETYQFIQSPTFMPLIMCPSQECQTNRSSGGRLYLQTR  
GSRFIKFQEMKMQEHSQDQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVQVQGLLSETYLEA  
HRIVKMNKSEDDSGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI  
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM  
AEADRTAIHEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP  
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAAYVEMRREAWASKDATY  
TSARTLLAILRLSTALARLQVVDVVEKEDVNEAIRLMEMSKDSLGDGKGQTARTQRPADVIFATVRELVSQGRSV  
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV



## FIGURE 587

CTTTCTGCCACACTAGACATGCGCTTGCCAGCGTGTGGAGAGACCGCTACCGGTGAACCAGCGGGTTTTT  
CGGACTTGGGGTTCGTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCC  
AGGCTGGGGTGTCCAGAAAGGCCAGGAATCGAAATGCTTCATGGAACAACCACCTGGCCTTCAAGTTCGCCCA  
TGGAGTCATAGTTGCAGCTGACTCCAGGGCTACAGCGGGTGCTTACATTGCCTCCAGACGGTGAAGAAGGTGAT  
AGAGATCAACCATACTGCTAGGCACCATGGCTGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCTGTGGC  
TCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAACTGCTTGCCAA  
CATGGTGATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGGATAAGAGAGGGCCCTGG  
CCTCTACTACGTGGACAGTGAAGGGAACCGGATTTACGGGGCCACCTTCTCTGTAGGTTCTGGCTCTGTGTATGC  
ATATGGGGTCATGGATCGGGGCTATTCCATGACCTGGAAGTGGAGCAGGCCTATGATCTGGCCCGTCGAGCCAT  
CTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCAACCTCTACCACGTGCGGGAGGATGGCTGGAT  
CCGAGTCTCCAGTGACAATGTGGCTGATCTACATGAGAAGTATAGTGGCTCTACCCCCTGAAGAGGGTGGATGC  
AGCTGCTTGTGTTTCTTGGGGTGA CTGTCATTGGTAATACGGACACAGTGACCCATCCTCCATCCTATTTATAGT  
GGAAGGGCCTTCAATTGTATCAGTACTTTTTTTAAGCTCTGGCACATTGACCTCTATGTGTTACCAGTCATTAA  
TGAGCTGCTGCAGAGGTGACTATTTGTTTACTTTCTTGGATGTTAAACATTACACTACTCACTCAATCTCA

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**FIGURE 588**

MALASVLERPLPVNQRGFFGLGGRADLLDLPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTLAFKFRHGVIVAA  
DSRATAGAYIASQTVKKVIEINPYLLGTMAGGAADCSFWERLLARQCRIYELRNKERISVAAASKLLANMVYQYK  
GMGLSMGTMICGWDKRGPGLYYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQAYDLARRAIYQATYR  
DAYSGGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

TCTCTTGATTCTAGTCTCTCGATATGGCACCTCCGTGAGTCTTTGCCGAGGTTCGCCAGGCCACGCTGTCTG  
GTCTTCAAGCTCACTGCCGACTTCAGGGAGGATCCGGACCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGC  
ACGGATGACTGCCATCCCTGGGTTTTGCCAGTAGTGAAGAAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTA  
AATCACGAGTATCTGCCAATCTGGGCTGGCTGAGTTCGGAGCTGTGCTTCTCGCTTGGCCCTGGGGATGAC  
AGCCGAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGAACAGGTGCACCTCGAATTGGAGCT  
GATTTCTTAGCGCGTTGGTACAATGGAACAAACAAGAACACACCTGTCTATGTGTCTCCACCAACCTGGGAG  
AATCACAATGCTGTGTTTTCCGCTGTGTTTTAAAGACATTCGGTCCTATCGCTACTGGGATGCAGAGAAGAGA  
GGATTGGACCTCCAGGGCTTCCTGAATGATCTGGAGAATGCTCCTGAGTTCCTCATTGTTGTCTCCACGCTGT  
GCACACAACCCAACTGGGATTGACCCAACCTCCGGAGCAGTGGGAAGCAGATTGCTTCTGTGATGAAGCACC  
CTGTGTTCCCTTCTTTGACTCAGCCTATCAGGGCTTCGCATCTGGAACCTGGAGAGAGATGCCTGGGCCATTGCG  
TATTTTGTGTCTGAAGGCTTCGAGTCTTCTGTGCCCAGTCTTCTCCAAGAACTTCGGGCTCTACAATGAGAGA  
GTCGGGAATCTGACTGTGGTTGGAAAAGAACTGAGAGCATCCTGCAAGTCTTTCCAGATGGAGAAGATCGTG  
CGGATTACTTGGTCCAATCCCCCGCCAGGGAGCACGAATTGTGGCCAGCACCTCTCTAACCTGAGCTCTTT  
GAGGAATGGACAGGTAATGTGAAGACAATGGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCAGCTA  
GAAGCCCTCAAAACCCCTGGGACCTGGAACCACATCACTGATCAAATTGGCATGTTACGCTTCACTGGGTTGAAC  
CCCAAGCAGGTTGAGTATCTGGTCAATGAAAAGCACATCTACCTGTGCCAAGTGGTGAATCAACGTGAGTGGC  
TTAACCAACAAAATCTAGATTACGTGGCCACCTCCATCCATGAAGCAGTCAACAAAATCCAGTGAAGAACACC  
ACCGTCCAGTACCACCAAGTAGTTTCTGTGATGTGTGTTCCCTGCCTGCACAAACCTACATGTACATACCAT  
GGATTAGAGACACTTGCAGGACTGAAAGCTGTCTGTGTGAGGCAGCTCTGTTTAAACCGGCCACATGAAGAG  
AACATCCCTTGAGACGAATTTGGGAGCTGGGATTAGAGCCTTTGGAGGTCAAAGCAAATTAAGATTTTTTTTAA  
GAATAAAGAGTACTTTGATCATGAGACATAGGTATCTGTCCCTCTCACTAAAAGGAGTGTGTGTGTGGCGG  
CCACGTGCTTCTATGTGGTGTGACTCTGTACAAATCTAGTCCCAAAGATCAAGTTGTCTGAAGGAGCCAAAG  
TGTGAATGTGGGTGTGCGCTCGGCATTAAATTCATCATCTCAACCCAGAGTGTCTGGTCTCCCTGCTCTTCTG  
CATGGTTGTGTCCTAGTCCTAAGCTTTGGTTCTTTAGGGTGACTGTGGTAAGAAGGATTTTAATCATGACATG  
CACGGACACGTACATATTTAACTGAAACAAGTTTTACCAAACAGTATTTACTCGTGATGTGCGTAGTGCACTTCTG  
ATATTTTTGAGCCATTCTATTGTGTTCTACTTCACCTAAAAAATAAAATAAAATGTTGATCAAG

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**FIGURE 590**

MAPP SVFAEVPQAQPVLVFKLTADFREDPDPRKVN LGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHEYLPIL  
GLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVYVSSPTWENHNNAVFS  
AGFKDIRSYRYWDAEKRLDLQGFLNDLENAPFSI VVLHACAHNPTGIDPTPEQWKQIASVMKHRFLPPFFDSA  
YQGFASGNLERDAWAIRYFVSEGFEFFCAQSFSKNFGLYNERVGNLTVVGKEPESILQVLSQMEKIVRITWSNPP  
AQGARIVASTLSNPelfEEWTGNVKTMRILTMRSelRARLEALKTPGTWNHITDQIGMFSFTGLNPKQVEYLV  
NEKHIYLLPSGRINVSLTTKNLDYVATSIHEAVTKIQ

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**FIGURE 591**

GAATTCGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAG  
ATCGAGAGCAAGACTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC  
ACGTGGTGTGGGCCTTGCAAAATGATCAACCCCTTTCTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC  
CTTGAAGTAGATGTGGATGACTGTCAGGATGTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCAGTTT  
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTAAATGAATTA  
GTCTAATATCATGTTTTCTGAAAACATAACAGCCATTGGCTATTAAACTTGTATTTTTTATTACAAAATATAA  
ATATGAAGACATAACCAAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

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**FIGURE 592**

MVKQIESKTAFOEALDAAGDKLVVVDFSATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP  
TFQFFKKGQKVGEFSGANKEKLEATINELV

CTTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCAGCGAGTCCGAATTAATTGGA  
TTTCATTCACTGGGGAGGAACAAAACCTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAGC  
GGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTACTTCTGTCTCGTCTGCCCCAACCCGCTAGCCTCGGCTTGG  
GTAAGGCAGGGCGGAATTAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCTATGCCTGCC  
CGAGGGGCGTCTGGTAGGCACCCGCCCTCTCCCGAGCTCGACCCCATGATAGATACGCTCAGACCCGTGCC  
TTCCGCTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCTG  
CTGCTGATGGACTGCCGCGCCAGAGGACTATACGAGTCTGCACATCGAGTCGGCCATCAACGTGGCCATCCCG  
GGCATCATGCTCGCGCGCTCGAAGGGTAACCTGCCGTGCGCGCGCTCTTACCGCGCGCGAGGACCGGGAC  
CGCTTACCCGCGCTGTGGCACCGACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATACG  
GGCGGCGAGTCTGTCTCGGCTGCTCAAGAGCTCAAGGACGAGGCTGCCGGCGCTTCTACCTGGAAAGGT  
GGCTTCAGTAAGTTCGAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTCG  
CCGCGTTCGACAGTCTGGGGCTCGGGGCTCGGGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGACCTT  
GACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTCTCCAGTGGAG  
ATCTTGCCTTCTCTACTTGGGCTGTGCCAAGACTCCACCAACTTGGACGTGTGGAGGAATTCGGCATCAAG  
TACATCTTGAACGTACCCCAATTTGGCGAATCTCTTTGAGAACGCGAGGAGTTTAAATACAAGCAAATCCCC  
ATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGC  
AAGAACGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTATG  
CAGAAGCTCAATCTGTGATGAACGATGCCATATGACATTGTCAAATGAAAAATCCAACATATCCCTTAACCT  
AACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGCA  
CAGCAGCTGTATTTTACCACCCCTTCCAACAGAATGTATACCAGGTGGACTCTCTGCAATCTACCTGAAGACC  
CCACATCCCTCCTTGTCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTCTT  
TGTGTGTGGCCCCAGGTGTCAAAATGACACAGCTGTCTGTACTAGACAAGGTTACCAAGTGCAGGAATGGTTAA  
TACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGTCT  
CTGTACCATGTGTACAGCCTACCCATGCAAGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAAA  
TGATAGGGTAGGAGCATGTGTCTTTAGGGCCTTGAAGGCTGTTTCCCTTTTGCACTCTGGAACCTGACTATATAAT  
TGCTTCAATGAAGACTAATTCAAATTTGCATATAGAGGAGCCAAAGAGAGATTTACGCTCTGTATTTTGGGTAT  
CAGTTTGGAAAAAAATCTGTATCTCCATTTGATTATTGTAATATTTGATCTTGAATCACTTGACAGTGTTTG  
TTTGAAATTTGTTTGTTTTCTTTGATGGGCTTAAAGAAATATCCAAAGGAGAAAAAGAGCAGTATGCCACT  
TCTTAAACAGAACAAAAAAGAAAAAATGTGCTCTTTCTAATCCAAAGGATATATTTGAGCATGCTTG  
ACTTTACCAATCTGATGACATCTTACGGACACTATTATCACTAAGACCTTGTATGGCGAAGTCTTTAGTCTT  
TTTCATGTATTTTCTCATGATTTTTTCTCTTATGTAGTTTGAATGCTTACCTTTGTAATATTTTGTCTT  
GTGTTTCGCAAGGGGATAATCTGGGAAAGACACCAATCATGGGCTCACTTTAAAAAAGAAAGAAATAAAAAA  
ACCTTCAGCTGTGCTAAACAGTATATTACCTCTGTATAAAATCTCTCAGGAGTGTCACCTCAAATGCAATACT  
TGGGTTGGTTTCTTCTTTAAAAAAATTTGTATAAACTGGAAGTGTGTGTGTGAGCATGGGTACCCATTGG  
ATAAGAGAAATGCATTTGATTTGGAAGAAGGGAGAGTTAAATCTCCATTATGTTCTGGGTGTAAGTTAGAGC  
TGGAAATTTATTATAAGATGTAAACCTTAAATTTAATAAAATACTATTTTGGCTATTGAAAAAATAAAAAA  
AAAAA

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**FIGURE 594**

MIDTLRPVFFASEMAISKTVAWLNEQLELGNERLLMDCRPQELYESSHIESAINVAIPGIMLRRLOKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN  
LDGSCSSSPPLPVGLGGLRISSDSSDIESDLDRDPNSATDSGSPLSNSQPSFPVEILPFLYLGC AKDSTNL  
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS  
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV  
DSLQST



## FIGURE 595

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCCCTCAGTAGCACGGAGTCCGAATTAA  
TTGGATTTCACTTACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCACTGACACTAAGAG  
CCAGCGCTCGACGCTGGTCAGAGAGAACTCCGGCTTTGACTTCTGTCTCGTCTGCGCCCAAGCCGCTAGCCTCG  
GCTTGGGAAGGCGAGGCCGAATTAACCCCGCTCCGAGAGCGCACGTTCCGCGCGGTTGGCTCGGCCATTGCTCTG  
CCCCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCATGATAGATACGCTCAGACCCGTG  
CCCTTCGCGTGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG  
CTGCTGCTGATGGACTGCGGCGCGCAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATC  
CCGGGCATCATGCTCGGCGCCTCGCAGAAGGGTAACCTGCCGGTGC CGCGCTCTTACGCGCGCGAGGACCGG  
GACCGTTACCCGGCGCTGTGGCACCGACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT  
ACGGGCGCGGAGTCTGTCTGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCTTCTACCTGGAA  
GGTGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAG  
TCGCGCCGCTTGCCAGTGTGCGGGCTCGGGGGCTGCGGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGAC  
CTTGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTTCCAGTG  
GAGATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATC  
AAGTACATCTTGAACGTACCCCCAATTTGCCGAATCTCTTTGAGAACGCGAGAGAGTTTAAATACAAGCAAAATC  
CCCATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTTATAGATGAAGCCCGG  
GGCAAGAACTGTGGTGCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTT  
ATGCAAGAAGCTCAATCTGTCTGATGAACGATGCCTATGACATTGTCAAATGAAAAATCCAACATATCCCTTAAC  
TTCAACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCA  
GCACAGCAGCTGATTTTTACACCCCTTCCAACCAAGATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAAG  
ACCCACACCCCTCTTGTCTGGAATGTGCTGGCCCTTCAGCAGTTTTCTTGGCAGCATCAGCTGGGCTGCCATT  
CTTTGTGTGCGCCCGAGGTGTCAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTCGGGAATTTGGT  
TAATATAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTT  
GCTCTGATCCCATGTGTACAGCCTACCCATGCAGGAGCTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACC  
AAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCAATCTGGAACCTGACTATAT  
AATTGTCTTCAAGTGAAGACTAATTCATTTTGCATATAGAGGAGCCAAAGAGAGATTTCAGCTCTGTATTGTG  
GTATCAGTGTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAATATTTGATCTTGAATCACTTGACA  
GTGTTTGTGTTGAATTTGTGTTTTTCTTTGATGGGCTTAAAAGAAATTTATCCAAAGGGAGAAAAGCAGTA  
TGCCACTTCTTAAACAGAACAAAACAAAAAAGAAATTTGTGCTCTGTTGTAATCCAAAGGGGAGATTTCGACG  
ATGCTTGACTTTACCAATTTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTATGCGCAAGTCTT  
TAGTCTTTTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCTTACCTTTGTAATATT  
TTTGCTTGTGTTGTCGCAAGGGGATAATCTGGGAAAGACACCAATCATGGGCTCACTTTAAAA

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**FIGURE 596**

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSDWNENTGGESLLGLLKKLKDEGCRAFYLEDEARGKNCVGVHCLAG  
ISRSVTVTVAYLMQKLNLSMNDAYDIVKMKSNISPENFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN  
VYQVDSLQST

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**FIGURE 597**

GCTGAGTCCAAGAGATAGCAAATCGAGTCTTAAATAATCCGGGAGAAAAGACGCCCGGGTAGATTGAGGTCGAG  
CCTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCCCTCCCTCTCAGTAGCAGCGAGTCCGAATTAATTGG  
ATTTCAATCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAG  
CGGCTGCAGCTGGGTGCAGAGAGAACTCCGGCTTTACTTCTGTCTCGTCTGCCCAACCGCTAGCCTCGGCTTG  
GGTAAGGCGAGGCGGAATTAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCATGCTGCTCC  
CCGAGGGGCGCTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCCATGATAGATACGCTCAGACCCGTGCC  
CTTCGCGTCGGAATGGCGATCAGCAAGACGGTGGCTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCT  
GCTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTGCACATCGAGTCGGCCATCAACGTGGCCATCCC  
GGGCATCATGCTGCGGCGCCTGCGAAGGGTAACCTGCCGCTGCGCGCGCTCTTACGCGCGCGGAGGACC GGGA  
CCGCTTCAACCGCGCTGTGGCACCACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATAC  
GGGCGCGAGTCGGTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGG  
TGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCAATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTC  
GCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCTGCGGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGACCT  
TGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTTCCCACTGGA  
GATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCCGCATCAA  
GTACATCTTGAAAGCTCACCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAAGCAATCCC  
CATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGG  
CAAGAAGCTGTGGTGCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTAT  
GCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTTGCAAAATGAAAAATCCAACATATCCCCTAACTT  
CAACTTCATGGGTACGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGC  
ACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAGAC  
CCCACACCCCTCCTTGTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTCT  
TTGTGTGTGGCCCCAGGTGTCAAATGACACAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGTTA  
ATACTAACAGAGAGATTTGCTCCATTTCTTTTGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGC  
TCTGTACCCATGTGTACAGCCTACCATGCAAGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAA  
ATGATAGGGTAGGAGCATGTGTTCTTTAGGGCTTGTAAAGGCTGTTTCTTTTGCATCTGGAAGTACTATATAA  
TTGCTTCAATGAAGACTAATTCATTTTGCATATAGAGGAGCCAAAGAGAGATTTACGCTCTGTATTTGTGGTA  
TCAGTTTGGAAAAAAATCTGATACTCCATTTGATTATTGTAATATTTGATCTTGAATCACTTGACAGTGTGTTG  
TTTGAATTGTGTTTGTTCCTTTGATGGGCTTAAAGAAATATCCAAGGAGAAAGAGCAGTATGCCACT  
CTTAAACAGAACAAACAAAAA

**FIGURE 598**

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRRLQKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESVLGLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN  
LDGSCSSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATDSDGSPLSNSQPSFPVEILPFLYLGCARDSTNL  
DVLEEFGIKYIILNVTPLNPLNFENAGEFKYKQIPISDHWSQNLQOFFPEAISFIDEARGKNCVGLVHCLAGISRS  
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV  
DSLQST

## FIGURE 599

CCGGCGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCCTTTGCACTCGACGTGTTGCGAGTCGTTTCC  
GCCATGCTGCCTCTGCTGCGCTGCGTGCCCCGTGTCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC  
GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACC CGGCTGTGCACCCGCGCCTTCGGGCTGCTCAGCGTGC  
GCAGGTTCCGAGCGCGCGCGGCCCTCCTGCGGCTCGCGGACCCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG  
CACACCGACGGAGACAAAGCTTTTGTTGATTTCTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT  
AAAACCTCCCTAAGATGCTGAGGTTGGGAGCTGGAACGAATGGGACAGAAGCGAAATTAGTGCGGAAAGTT  
GCCGGGGAAAAATCACGGTCACTTTCAACATTAAACACAGCATCCACCAACATTTGATGGTGAGGAGGAACCC  
TCGCAAGGGCAGAAGGTTGAAGAACAGGAGCCTGAACTGACATCAACTCCCAATTTCCGTGGTTGAAGTTATAAAG  
AATGATGATGGCAAGAAGGCCCTTGTTGGACTGTCATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT  
GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTCAGTCCACTGGCGAGTCTGAATGGAAGGATACTAATTAT  
ACACTCAACACAGATTCCCTTGGACTGGGCCCTTATATGACCACCTAATGGATTTCCTTGCCGACCGAGGGGTGGAC  
AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC  
CTCAAGAGTTTTGTCAAGAGCCAGTAGAGCAGACAGATGCTGAAAGCCATAGTTTTCATGGCAGGCTTTGGCCAGT  
GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCTTAATATCATGGGGGAAAAAATACC  
AAATTTAAATTATATGTTTTGTTCCTATTATATCATTTTTTCTGTACAAATCTATTATTCTAGATTTTT  
GTATAACATGATAGACATAAAATTGGTTTATCTCTCCGCTGAGTCTTCTAGAAAGTACCTGCTGGGTTCTCAGT  
TCCAGTTCCCATCCTTTGATTGATCACTCTCCCTGACATCCACCTGTATGACTTTGTACCAAAATGCTGTCTTCT  
CTTCTCCAATCAAGAAATAAATCCCTCGAGTTACAAAAACAAAAAAAAAAAAA

**FIGURE 600**

MLPLLRCVPRVLGSSVAGLRAAAPASPFROLLQPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGCGLH  
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTNINNSIPTFDGEEEPS  
QGQKVEEQEPELTSTPNFVVEVIKNDGKKALVLDCHYPEDEVGQDEAESDIFSIREVSFQSTGESEWKDNTYT  
LNTDSLWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKSFVKSQ

GTAAACGCTACTCCCGGACACGAGACCACGGCCTTCGGCTACACAGGGGGCCGCAATCCACCCTCCCGGACCTAAG  
AGCCTGGGTGCCCTGTTTCCGGAGTCCGCTCCCGCGCCCCAGATTTCGGCATCCGAGCCCTCAGCTCTCCAAGA  
CCGAGGACCGCCGGGTCCCGGCTCCGGATCCGAGGCTCGGGATCTGCCGACAGAACTAGCTCTCTCGAG  
ACCTCCGCCATCTGGGGGCACTAACTCCTCGAGCACAAGGGCCCAAGCTCCCAACGAGAAACTCTCTGATTTC  
CCAGCTCCTTAGGCCCAAGGAACCCGGCGCTCCGAATCTCCAGCTTTCGGACATCTGGCACAGGGGCAGAGAC  
AGAACTCAGCGCCAGCTCGGGGAATTTAAACACTCAGCTTCCAAGAGCCAAGGAATCTCAGTGTGTGAAC  
CACAACTCTAAGGAGCCCTCAAAGTTCTCAGTCTCCAGGTGCTGTACTCAACTCAGCTCTAGGAACAGCTGGGTCT  
CTGGGAAGGAGCCCAAGCGCTCCAGGCACTTCCAGGCTCAAGAAACCCCGTGCTTCCATCTAGTGTGGCC  
ATCCTCCTCGAATCTCCAAGGGCTTCGAGCGCGCGAGGCCACCGCCAACGGGGGCTGGCGTGGCTCCATCG  
AGGACACAGGCGCGGACAGCGCGCTACTGGGCTCCCGGGACAGGTCGGCGCTGCTCTCGACCAACCTCG  
TTGTGCTGCTGACAGTGGTGCGCTGTGTGGGGCTGGCGCTGGAGCTTGGGGTCTTGGGGGCGGGGTGCGC  
TGGCGTTGGGCGCGAGCGCTTGAGCGCTTCTGCTCTCCCGGGCAGCTGCTGCTGCGTCTGCTGCGGATGATCA  
TCTTCCGCTGGTGGTGTGCAGCTTGATCGCGGCGCGCGCAGCTGGACCCCGGCGCTCGGGCTCTGGGGC  
CTGGGGCGTGTCTTTTCTTGTCACACGCTGCTGGGCTGGCGCTCGAGTGGGTCTGGCGCTGGCTCTGCG  
AGCGGGCGCGGCTCCCGCGCATCAACGCTTCGTTGGAGCCGCGGGCAGTCCGAAAATGCCCCACAGG  
AGGTGCTCGATTGCTTCTGGATCTTGGCAGAAATATCTCCCTTCAACCTGGTGTGACGAGCCTTCTCGCTCA  
ACTTCAACCTATAAGAGAGGAAATATCAACGGAACAGGTTGAAGTGGCCGTGGGACGAGAGGTGGAGGGGA  
TGAACATCTCGGCTTGGTAGTGTTCGCTATGCTTTGTTGTGGCGCTGCGGAAGCTGGGGCTCTGAAGGGGAGC  
TGCTTATCCGCTTCTTCAACTCTTCAATGAGGCCACCATGGTTCTGGTCTCTGGATCATGTGTACGCCCTT  
TGGGATCATGTCTCTGGTGGCTGGAAGATCTGTGGAGATGGAGGATGTGGGTTTACTCTTTGCGCGCTTGGA  
AGTACATCTGTGCTGCTCTGGTGTGGGTACCGCATCATGGGCTCTGGTATGCCCTCATCTACTCTCTCTTCA  
CCCGCAAAACCCCTACCGCTTCTGTGGGGCATGTGACCGGCTGGGCATGCTTTGGGACATTTCTTCAGTT  
CCGCAACGCTGGCGCTGATGATGAAGTGCCTGGAGGAGAATATGCGTGGCCAAAGCACATCAGCGCTTTATCCT  
TGCCATCGGCGCACCTCAACATGAGCGGTGCGGCTCTCCAGTGTGGCGCTGGCGCGAGTGTATTGACACAGC  
TCAGCCAGCAGCTCTTGGACTTCTGAAGAATCATACATCTGGTTCAGGCGACAGCGCTCAGCGTGGGGGACG  
CGGGCATCCTGCTGGAGGTGCTCTACTCTGGCCATCATCTCGAAGCAGTCAACTCTCCGGTCGACCATATCT  
CCTGATCTCTGGCTGTGGACTGGCTATGTGACCGGCTCTGTACCGCTCTCAATGTAGAAGGTGACGCTCTGGGG  
CAGGATGCTCCAAATATTGTGGACGTACGAGTGCAGAGACAGAGCTGAGTTGATACAGTGAAGAGT  
AGCTGCCCTGGATTCCGCTGCCACTCCCCACTGAGGAAGGAAACCCCTCTCAAACACTATCGGGGGCGCGAG  
GGGATGCCACCGTGCCTCTGAGAAGGAATCAGTCACTGTAACCCCGGAGGGACCTTCTCTGCCCTGCTGGGG  
TGCTCTTTGGACATCGATTATAGGAATGGATTAATGTAGTGAGCTAGGCTCTGGGGGTGCTGCTGACACTCT  
GGGAGCAGCGAGGGGCCCCAGCTCTCAGGACAGGAGATCTGGGATGGCTGGCTGCTGGAGTACATGTGTTTCA  
AGGGTTACTCTCAAACCCCACTTCTCACTACTTGTCCCACTCAAGGCTAGAAACAGCAAGATGGGAAT  
AATGTTCTGTGCGTCCCAACCGTGACCTGCTGGGCTCCCTGTCTCAGGGAGCAGGTACAGGTCACCATGGG  
GAATCTAGCCCCACTGGGGGAGTGTTACAACACAGCTGGTTATTTTGACGCTGTAGTTGTGGGGGAGTGT  
GTGTGTGCAGGT  
CCACCTGTGCCAGATCCCTATTCCCTCCACAATAACAGAAACACTCCAGGACATCTGGGGAGAGGCTGAGG  
ACAAATACCTGCTGCTCACTCCAGAGGACATTTTTTTAGCAATAAAATTGAGTGTCAACTATTTAAAAA  
AAAAA

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**FIGURE 602**

MVADPPRDSKGLAAAEPTANGGLALASIEDQGAAGGYCGSRDQVRRCLRANLLVLLTVVAVVAGVALGLGVSGA  
GGALALGPERLSAFVFPGEILLRLLRMIIILPLVVCSLIGGAASLDPGALGRLGAWALLFFLVTTLLASALGVGLA  
LALQPGAASAAINASVGAAGSAENAPSKEVLDSFLDLARNIFPSNLVSAAFRSYSTTYEERNITGTRVKVPVGQE  
VEGMNILGLVVFVFAIVFGVALRKLGPGEILLIRFFNSFNEATMVLVSWIMWYAPVGIMFLVAGKIVEMEDVGLLFA  
RLGKYILCCLLGHAIHGLLVPLIYFLFTRKNPYRFLWGIVTPLATAFGTSSSSATLPLMMKCVEENNGVAKHIS  
RFILPIGATVNM DGAALFQCVAAVFIAQLSQSLDFVKIITILVTATASSVGAAGIPAGGVLT LAIILEAVNLPV  
DHISLILAVDWLDRSCIVLNVEGDALGALLQNYVDRTESRSTEP ELIQVKS ELPDPLPVPTEEGNPLLKHYR  
GPAGDATVASEKESVM



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**FIGURE 603**

GGGATTTTTAAAAATCAAAATACAAATCCAACTTTTGAGTTTTCGTTGTCATTGCTCTTATCTTTCTGAGTC  
ACTTCCCATTTTTCCAAACTCAGCAACCCAGTTTGCAGAGCTGGTTTCACTGAACCTTTGTAAGGTGTTTGGTGCG  
GTCACRGGTATACTTGCCTGTAGTATTTGACTCAGCGCGATCTGCCTTGAGTCATTTTACCGCGGCCATTTAC  
TACTGCCGTTGAGCCCTGTCTCAGCCCTTGGGAGTGGTATGTTGAGAGTTTTCTGTCTGGCTGRRGAGGGATC  
ATTTAGTTTTTTCGGGACGTATGTTGCACTGAGGATTTAGGGAGAGAGCAAGATTTCTGTTGAGGAGGTTTCAAGA  
TATAAGGAATCGGGAGAGTAGATAGGAGTGAAGCATTTGGCAGCGTAAAGAGCTTGGCTTAGCTTTAATGGATT  
AGGGAGAGATTGCTATCTAGCATTATTACATGTTATTGTTCTCTTGTCTATTTATACACCTAGAACAACCTTTC  
CCTCGGGTTAACAACATCTTCAACTCTGTTTCTGTATGGCTCCTGACTCTTACCTTTGTTTATAGGAGGCTTC  
CCTCTTCAGAGGAAACTGGGAGAGGCAATTTCCACTGCTTCTTTTTCTGTGCTCTTTTAAACACTCAAAACCCAG  
AACACTTAATCTCTGCAGCTCGTGCAAAAAATTCAGTCTGTAATTTAAAAATGTGTGACCGGTACACTGCTGACCA  
TGGGCATGCTATTGTTTGTATCTGTAATGTATGTCCATTTTCAGTGTGTCTGTTTATGATGACAGGTATAG  
ACTAGAGACAAGACCTCTGTCTCCGTAGCATCCGAGCAGTCTGAATGCCAGAAATGATAACCGTTTTGCTAC  
AGCATTGTAAATTGCTTGTGTGCTTAGCCCTCATTCCACCATCTACATGGCAGCTCCATTGGCACAGACTTCTG  
GTATGAATATCGAAGTCCAGTTCAAGAAAAATTCAGTGATTGAATAAAAGCATCTGGGATGAATTCATTAGTGA  
TGAGGCAGATGAAAAGACTTATAATGATGCACTTTTTCGATACAATGGCACAGTGGGATTGTGGAGACGGTGAT  
CACCATACCCAAAAACATGCATTGGTATAGCCACCAGAAAGGACAGAGTCATTGATGTGGTCACAAAAATGTGT  
GAGTTTTACACTAATCAGCAGTTTCATGGAGAAATTTGTTGATCCCGGAAACCAATAGCGGGATTGATCTCCT  
TAGGACCTACTTTTTGGCGTTGCCAGTTCCTTTTACCTTTTGTGAGTTTAGGTTTGATGTGCTTTGGGGCTTTGAT  
CGGACTTTGTGCTTGCAATTTGCCGAAGCTTATATCCACCATTGCCACGGGCATTCTCCATCTCCTTGCAGGTCT  
GTGTACACTGGGCTCAGTAAGTTGTTATGTTGCTGGAATTGAACTACTCCACAGAACTAGAGCTCCCTGACAA  
TGATCCGGTGAATTTGGATGGTCCCTTCTGCTGGCTTGCTGCTGCTCCCTTACAGTTCATGGCTTCTGCTCT  
CTTCATCTGGGCTGCTCACACCAACCGGAAAGAGTACACCTTAATGAAGGCATATCGTGTGGCATGAGCAAGAAA  
CTGCCTGCTTTACAATTGCCATTTTTATTTTTTAAAAATAACTGATATTTTCCCAACCTCTCAATTGTTTTTA  
ATTTTTATTGTTGGATATACCAATTTTATATGAAAATCTATTTTTATTATACACATTACCACTAAATACACACT  
TAATACCACATAAAATTTATGTGGTTTACTTTAAGCGATGCCATCTTTCAATAAACAATCTAGGTCTAGACAGA  
AAGAAATGGATAGAGACTTGACACAAATTTATGAAGAAAAATTGGGAGTAGGAATGTGACCAAAAACAAGTTGTG  
CTAATGTCTGTTAGACTTTTCAGTAAACCTAAAGTAACGTGATCTGTTCAACTAAAAACCTCTATATTAGTTTCTT  
TGGGAAACCTCTCATCGCAAAACTTTATGTTCACTTTGCTGTTGTAGATAGCCAGTCAACAGCAGTATTAGTG  
CTGTTTTCAAAGATTTAAGCTCTATAAAATTGGGAAATTAATCAGATCATTTTCCCTAAGCATTGACACATAGC  
TTCACTGAGGTGAGATATGGCAGCTGTTTGTATCTGCACGTGTCTGCTCTACAAAAAGTAAAAATACAGTGT  
TACTTGAATTTTTAACTTTGTAACCTGCAAGAATTCAGTTTCAGCCGGCGAGGATTAGTATTATTTTTAACTCTC  
CGTAAGATTTTCAGTACCACCAAAATGTTTGGATTTTTTCTTCCCTCTTCACATACCAGGGTTATTAAAAAGT  
GTGCTTTCTTTTACATTATATTACAGTTACAAGTAAAAATTCCTCACTGCTATTTATTATTCCAGCCACGTA  
CTATAAGAACCTTTACCATATAATGACCTCCAGAGCTGGGAAACCTACCACAAGATCTAAAGTTCTGGCTGTCC  
ATTAACCTCCAACATGGTCTTTATTCTTGTGGTAATATGATGTGCTTCTTGGCTAAATCCCTTCTGGTGTG  
TGTATCAACATTATTAAATGCTCTTAATTCAGTCATTTTTTATAAGTATGCTATAAATCATTTGAACCTTTAAAA  
AACTATTGTTATTTTCCACTACTGTAGCAATTGACAGATTAATAAAATGTAACCTCATAATTTCTTACCATAAC  
CTCAATGCTTTTTTAAAAATAAAATTAATAATGAAAAGAGAAA

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**FIGURE 604**

MDNRFATAFVIACVLSLISTIYMAASIGTDFWYEYRSPVQENSSDLNKSIIWDEFISDEADEKTYNDALFRYNGTV  
GLWRRRCITIPKNMHWYSPPERTESFDVVTKCVSFTLTEQFMEKFVDPGNHNSGIDLLRXYLWRCQFLLPFVSLGL  
MCFGALIGLCACICRSLYPTIATGILHLLAGLCTLGSVSCYVAGIELLHQKLELPDNVSGEFGWSFCLACVSAPL  
QFMASALFIWAAHTNRKEYTLMKAYRVA

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**FIGURE 605**

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCCATCATGAGGGAAATCGTGCA  
CTTGCAGGCCGGGCAGTGCGGCAACCAAAATCGCGCCCAAGTTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA  
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG  
CGGCAAGTACGTGCCCCGCCGCTGCTCGTGGATCTGGAGCCGGCACCATGGACTCCGTGCCGCTCGGGGCCCTT  
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTCCGTCAGAGTGGTCTGGGAACAACCTGGGCCAAGGGGCACTA  
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA  
GGGTTTTCCAGCTGACCCACTCCCTGGGTGGGGGACTGGGTCTGGGATGGGTACCCCTCCTCATCAGCAAGATCCG  
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCCTTCGCCCAAAGTGTAGACACAGTGGTGGGA  
GCCCTACAACGCCACCCCTCTCAGTCCACCAAGCTCGTAGAAAAACAGACAGAGACCTACTGCATTGATAACGAAGC  
TCTCTACGACATTTGCTTCAGAAACCTAAAGCTGACCACGCCACCTATGGTGACCTGAACCACCTGGTGTCTGC  
TACCATGAGTGGGGTCACCACCTGCTGCGCTTCCAGGCCAGCTCAATGTGTGACCTGCGGAAGCTGGCTGTGAA  
CATGGTCCCCTTTCCCCGGCTGCACCTTCTTCATGCCCGGCTTTGCCCACTGACCAGCCGGGCGAGCCAGCAGTA  
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGTGCAAGAACATGATGGCTGCCTGCGACCCCCG  
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTAGGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAAATGCT  
TAATGTCCAAAAACAAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAAATGTGAAAACGGCTGTCTGTGACAT  
CCCACCTCGGGGGCTAAAAATGTCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT  
CTCCGAGCAGTTTACGGCCATGTTCCGGCGCAAGGCCTTCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT  
GGAGTTTACCAGAGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA  
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCTAGAGCCTTCAGTCACTGGGGAAAGCAGGGAA  
GCAGTGTGAACTCTTTATTCACTCCAGCCTGTCCTGTGGCCTGTCCCAGTGTGTGCACTTGTCTGTTTTCCCTGT  
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTCATAGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 606**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESDCDCLQGFQLTHSLGGGTGSGMGT  
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEFYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTP TYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFPFRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKVEDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPRGLKMSATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEEEEVA

## FIGURE 607

CTATCAATCTCCAGAGCTTTTCTTTTTAAGTGTGAGCGAGTTTATTAGAGAAGTAAAGAGACCCAAGATGCCT  
ACTCCATAGACAGAGCAGCCACTGTGACACTGTACCCATTAAACACTAACTCTCCATTGCCCTCCAGCAACCCC  
TAGCACCCACTGTCTACTTTCTGTCTCTATGTGGTTGTCTATTGAGGGACATCACATAAGTGGAGTCATATATT  
TGTCCTTTCATGTCTCCCTTATTTTCATTTAGCATAACGTTTTCAAGGGTTTCCTGTGTTGTGAATATATCAGAAT  
TTCATTCTCTTTTTAAGTAGAATCATATCATTTTAAACATTTCAGTTGGACCATCTAAGTTCAGTCTCTTCATT  
TTCAACAATTAAAAACAGCCCTCAACCGGGTGCATCTCACGTTAGCTAGAGACAGAACTGGAGCTAGAAGTCAG  
ATCTCTTACCAAAGTTGCCTTTCTTCTGTGGGTAAGTGGGGCACCCCTTGGGACGCTGTGCTGGGCGTACATG  
GGTGCTTGATGAAGTTACTTGGTGGACTGATGTGATTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCC  
CTACAGAGCAGGCATGGAGAGAAGGAGAAATACATACGGGCAGGAGCCAGGAGAGGGAGGGTGTAGTGAGCAGAG  
ACCGCGCCACTGCATCTCAGCCTGAGTGACAGAGTGAGAATCCATCTAAAAAATTGCTTACTAAAGAAGTGGTCT  
CCTGAGGTCTTAAGACGTTCTTGCCAATGTCTTGAGTGGGTGGGAGAGAGCCTCCAGTCATTGAGCTGTGGAATT  
TCAGAGGTGAGAACCACACCTAACCCCCAATTACTTTCCCTGTGTTGCCTCAGTGACACAGCTGCAGGAACCTG  
GTGGGTGTTGTATTAAGTAAATTTGACCTTTATCTTTGCAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGT  
GTATCTGTAGTGCTGAGGACTCCTTGGGGCCTCTGAAGTCACAGAGAGAACCTGCAGGGTGGGGGACCAGTGTGT  
GACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCTGTCAATTTGCATTTCTCTCCACAGGGGAATCTTCAATCT  
TGAGAGGTGTGATCATAACTTGCCCTGTTTCTTGTGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTAGAC  
AGCAAGGCCAGATGCACATCCCTGGAAGGACATCCATGTTCCGAGAAGAAGATGATCCCTGTATTTCAAGACC  
TCTGTGCACTTATTTTGAACCTGCCCTGCTCCACAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTA  
AATCCATCTCTGCTAAGTTAATGTTGGGTAGAAAGAGATACAGAGGGGCTGTTGAATTTCCACATACCCCTCCTTC  
CACCAGTTGGAACATCTCTGGAATTTGGGAAGAGCACAAGAGGAGATCCAGGGCAAGGCCAATTTGGGATATTCTG  
AAACTTGAATATTTTGTGTTGTGTCAGAGATAAAGACCTTTTCCATGCACCCCTCATACAGAAACCAATTTTCTT  
TTTTATACTCAATCATTTCTAGCGCATGGCCTGGTTAGAGGCTGGTTTTTCTCTTTTCCCTTTGTGCTCTCAAAG  
GCTTGTAGTTTGGGTAGTCCTTGTCTTTTGAAATACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCCCTCTA  
TGACCTCGCCCTCCACAAATGGGAAAACAGACTACTTGGGAGCACCCGCTGTGAAATACCAACCTGAAGACACG  
GTTCAATCAGGCAACGCACAAAACAGAAAATGAAGGTGGAACAAGCACATATGTTCTTCAACTGTTTTTGTCTAC  
ACTCTTTCTCTTTTCTCTACATGCTGAAGGCTGAAAGACAGGAAAGATGGTGCCATCAGCAATATATTATCTTA  
ATTGAAAACCTTGAAATGTGATGTTTCTTACTAATTTTAAAAATGTATTCCTTGCCAGGGCAGGCAAGGCTCGTC  
ACGCGTGTAATCCCAGCACTTCAGGAGGCTGAGGTGGGCGGATC

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**FIGURE 608**

ATCTCAGCTTAGCTAGAGACGAACTGGAGCTAGCAGTCAGATCTCTTACAAAGTTGCCTTTCTTCTCTGTGGG  
TAAGTGGGGCACCCCTGGGACGCTGTGCTGGGCGTACATGGGTGCTTGATGAAGTTACTTGGTGGACTGATGTGA  
TTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCCTACAGAGCAGGCATGGAGAGAAGGAGAAATACAT  
ACGGNN  
NNNNNNNNNNNNNNNNNNNNNTTGTCTGAAGAAGTGGTCTCCTGAGGTCTTAAAGACGTTCTCTGACAATGTCTT  
GAGTGGGTGGGAGAGAGGCTGCAGTCATTGTGCTGTGGAAATTCAGAGGTGAGAACCACACCTAACCAAAATTAC  
TTTCCCTGTTTGCCCTCAGTGACACAGCTGCAGGAACCCCTGGTGGGTGTTGTATTAAAGTAAATTTGACCTTTATTC  
TTTGAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGTGTATCTGTAGTGTCTGAGGACTCCTTGGGCCCTCTGA  
AGTCACAGAGAGAACCCTGCAGGTTGGGGACCAGTGTGTGACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCT  
GTCATTTTGCATTTCTCTCCACAGGGCAATCTTCAATCTTGAGAGGTGTGATCATAACTTGCCTTGTTCTTGT  
CGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTTAGACAGCAAGGCCAGATGCACATCCCTGGAAGGACATCC  
ATGTTCCGAGAAGAAGATGATCCCTGTATTTCAAGACCTCTGTGCACTTATTTATGAACCTGCCCTGCTCCCA  
CAGAACACAGCAATTTCTCAGGCTAAGCTGCCGGTTCTTAAATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGA  
GATACAGAGGGGCTGTTGAATTTCCACATACCCCTCTCCACCAAGTTGGAACATCCTTGGAAATTTGGAAGAGC  
ACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTGAAACTTGAATATTTTGTGTTGTGCAGAGATAAAGAC  
CTTTTCCATGCACCCTCATACACAGAAACCAATTTTCTTTTTATACTCAATCATTTCTAGCGCATGGCCTGGTT  
AGAGGCTGGTTTTTCTCTTTCTTTTGGTCTTCAAAGGCTTGTAGTTTGGGTAGTCCTTGTCTTTGGAAAT  
ACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCTCTATGACCTCGCCCTCCACAAATGGGAAAACAGACTAC  
TTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACCGTTCATTACGGCAACGCACAAAACAGAAATGAAGG  
TGGAACAAGCACAGATGTTCTTCAACTGTTTTTGTCTACACTCTTTCTCTTTCTCTACCATGCTGAAGGCTGA  
AAGACAGGAAGATGGTGCCATCAGCAAATATTATTCTTAATTGAAACTTGAAATGTGTATGTTTCTTACTAATT  
TTTAAAAATGTATTCCTTGCCAGGCCTAGACAAGGATCGCTCAGCCTGTATATCCAGCACTTCAGGTAGAGCT  
GAGGTGGGCGGTATCGACCTGAGGTGAGGTAGCTTTGAGACCAGCCTGATGAAACNNNNNNNNNNNNNNNNNNNN  
NN  
NN  
NN  
GAGTGAGAATCCATCTCAAAAAAACAAATAAACAAATTGCTTGCTAAAGAAGTGGTCTCTCTGAGGTCTTAAGAC  
ATTCTTGACAGTGTCTTGAGTGGGTGGGAGAGAGGCTGCTGTGTCATTGCGCTGTGGAATTTACAGATGAGAACCA  
CGCCTAGCCAAAATCACTTTTCTGTTTGCCTCAGTGACACAGCTGCAGGGACCCCTCGTGGATGTTGTATTAAAT  
AAATTTGACCTTTGCTCTTTGCAATCTGTGAAATGTTGCTTCTGAGGGGCCACATGCATCTATAGTGTGAGG  
ACTCCTTGGGCCTCTGAAGTCACAGAGAGAACCAGCAGGTCTATGTTTTGT

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**FIGURE 609**

LTLARDRTGASSQISYKVAFLLLWVSGAPLGRGAGRIWVLDEVTWWTIDVIDVQHVCRRDRGYGFPYRAGMERRRNTY  
GXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXLLAKEVVS

## FIGURE 610

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTCCGAAAGCAGGGACTAAAAGCCCCACTTCG  
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTCCGGAAG  
TCCTGAGTTGAGGCTTTCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCTCAACTACG  
TGAACGCATGTGGCCGGCTCGCCGCAGGAGAAGGATTGCCCTCGACCTCGCGGTCGGCGGGTCCAGCCGGC  
TGTCGTGCGGCTTAGGAGCCGCTCTTTTCCAGAAGCTCTCGGTCCCATTCCCGCTCTCGAGCCGGTTTTCGT  
CCAGGAGTCGGAGGACGAAGTCCAGGTCCCGTTCCCGAAGGCCACCAGCGGAAGTACAGGCGCTACTCCGGGT  
CATACTCGCGGAGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTCCACAGGAGATACT  
ACCGGTCTCCTTCGCGGTACCGGTCCCGTCCCGTAGCAGGTCCGCTCTCGGGGAAGGTCGTACTCGGGAAGGG  
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGACACAGCAGATGGA  
GGGACAGATCCAGGACGAGTTCGCGGAGCAGAACCCCTTTCGCTTAAGTGAAAAGATCGAATGGAGCTGTTAG  
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTT  
CTTCAGCCAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT  
TGTCGGAACAAAACCTTCAGAAAGCCAACTGTCAAATCTGATTAGCCACTTATATCTTAGACTATACTTTTGGG  
AAGCTAGAGATGTATATAATGTGCTAAATCAAAGTAGCAAACTGGAAGATAGGCAATGTCAAACCCATGAAAA  
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCCTCATGCCGTAAATGAGGCAGATGGCTTGAGTCCAGG  
AGTTCAAGACTAGCCTGGGCAATGTGGCAAACCCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCAATGGTGG  
TGCATGCCTGTAGTCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT  
GAGCCAAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCCTGTCTCAAAAAATACATTTATTTT  
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTCTATTACTAGTTTT  
TCTAAGCTATTTACAGATGTTTGTAGCTTTCAATTTGCAGCATTATGTTCCACAAAATCTGTACTCAGCATATA  
CAGTATAGTTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGGTGTGCGAGACATTGATGAAGAAAATC  
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTACACACTGAAAACCTTAGT  
TTTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCACTATTTGCATAAAGTATTAAGTCAATTT  
TTAACTAAGCAAAGGTACACGTTGTAAACGGTGGGGCATCTGTGAAAAAGATGTCCCTTTCATAATATATGCAAT  
ATATTCCAGATGTTTGTAGAGATTACAGAAGAGGAGGCCCTGCTTCACTTGCGAGATAAGTTTATTATAATTCTCCA  
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCC  
TCTCGGGGGCTT



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**FIGURE 611**

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRFSRSSRSHSRVSSRFSSRSRRSKRSRSRRRHQRKYR  
RYSRSYSRSRSRSRRYRERRYGFTRYYRSPSRYSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE  
HSRWRDRSRTSRSTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPASLRTVPSAKETSRGIGVSSNGAKPEV  
SILGLSEQNFQKANCQI

## FIGURE 612

GGACGTAGGAGGTGGAGGTTTGGAATTCGCCGTTTCAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC  
GAAAGGAAGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTCGGAAGTCTCTGAGTTGA  
GGCTTCGCGGATCCTTTCCGGAGAAAAGCGCAGGCTAAAGCCGCAAGTGAAAGATGTCCAACACTAGTGAACGACATG  
TGCCCGGGCTCGCCGCAGGAGAAGGATTGCGCCTCGACCTCGCGGTCGGGCGGGTCCAGCCGGCTGTCGTGCGG  
TCTAGGAGCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTCGTCCAGGAGTCGG  
AGGAGCAAGTCCAGGTCCCCTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTCTACTCGCGG  
AGCCGGTCGCGATCCCGCAGCCGCGTTACCGAGAGAGGCGCTACGGGTTACCCAGGAGATACTACCGGTCTCCT  
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTGCGGCTCTCGGGGAAGGTCTGTAAGTGCAGGAGGGCGTACGCGATC  
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC  
AGGACGAGGTGCGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA  
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGAAGTTCAGCTAGTCTCAGAACTGTTCTTACGCCAAA  
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTGTGCGGAAAAGGTAAACAGAAGATGGA  
ACTCGAAATCCCAATGGAAAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCGTAGCAAAAGCCA  
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAAATAGATCAGAAAAAAGTCCA  
TATGGACTGTGGATACCTATCTAAAAGAAGAAAACTGATGGCTAAGTTGTCATGAAAACCTGCACCTTTATTGCAAG  
TTAGTGTTTCTAGCATTATCCCATCCCCTTTGAGCCATTACAGGGGTACTTGTGCATTTAAAAACCAACACAAAAAG  
ATGTAATACTTTAACTCAAAATATTAACATTTTAGGTTTCTCTTGACAGATATGAGAGATAGCACAGATGGACCA  
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAATATTTGTTCTTGGTTATGTAATAATGAAATTTTT  
AGACACAGTAATGAACTGTATTCCTGTTTTGTATATTTAATAAATTTCTTGTTTTCATTCTTAAAAA

## FIGURE 613

CTTTTTCCTCATCTCAGAACCTTCTCGCGTCGCGTTTGACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAAC  
CTTCCAGCCTGCGACCTGCGGAGAAAAAATTACTTATTTCCTTGCCCCATACATACCTTGAGGCGAGCAAAAA  
AATTAAATTTTAACCATGAGGGAAATCGTGCACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC  
TGGGAGGTGATCAGTGTATGAACATGGCATCGACCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC  
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAAATATGTTCTCGTGCCATCCTGGTGGATCTAGAACCT  
GGGACCATGGACTCTGTTCTGCTCAGGTCTCTTTGGCCAGATCTTTAGACCAGACAACCTTGTATTGGTCAGTCT  
GGGGCAGGTAAACAACCTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCCTGGATGTGGTA  
CGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT  
GGAATGGGCACCTCTCCTTATCAGCAAGATCCGAGAAGAATACCTGATCGCATCATGAATACCTTCAGTGTGGTG  
CCTTACCCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAAT  
ACTGATGAGACCTATTGCAITGACAACGAGGCCCTCTATGATATCTGCTCCGCACTCTGAAGCTGACCACACCA  
ACCTACGGGGATCTGAACCACCTTGCTCTCAGCCACCATGAGTGGTGTACCCACCTGCCTCCGTTTCCCTGGCCAG  
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCTTCCCACGTCTCCATTCTTTATGCCTGGCTTT  
GCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCAGAGTCCCGGAACCTACCCAGCAGGTCTTCGAT  
GCCAAGGACATGATGGCTGCCGTGTACCCCGCCACGGCCGATACCTACCGTGGCTGCTGCTTCCGTGGTGGG  
ATGTCCATGAAGGAGGTGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTTTGTGGAATGGATC  
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACTTCATTGGCAAT  
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGAGCAGTTCACTGCCATGTTCGCCGGAAGGCCCTTCCTC  
CACTGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT  
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCAAGAGGAGGCCTAA

GGCAGAGCCCCATACCTCAGGCTTCTCAGTTCCTTAGCCGTCTTACTCAACTGCCCTTTCTCTCTCCCTCAG  
AATTGTGTTTGTCTGCTCTATCTTGTTTTTGTCTCTCTGGGGGGGGTCTAGAACAGTGCCTGGCACAT  
AGTAGGCGCTCAATAAATCTTGTGTTGTAATAAAAAAAAAAAAAA

**FIGURE 614**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDSLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGQQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTIDETICYIDNEALYDICFRTLKLTPTTYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKDMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEDFGEEAEAEA

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**FIGURE 615**

TGTTCCGCGATCTTCTCAGGCTCTCTAGCAGCATCCATCGCGCCACCCATATCTTCACTGGCTTCACCTTCTCC  
TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCTATGACTGTCGCTCCGTCGCCAGCGGGAGCCGCTCG  
TCCTGGGTGGCCGCTTGC GCCGCTTGGCTTTTCTCTCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG  
CTCCGCTCTCTTTACCCCGGATCCCGGACCCCGGGCACTGCCCGACCCCTTCTCTCCCTCATTTCCTAGGGG  
GAGATGGCCCGTGCTGACCCCCAGCCTCGCGCTCCAGCAGCTCTGCCAACCAGCCTCGCCGTGGCGGGAG  
GCATCTCTCGGGCAGCGCCGAGAAGCGGCGAAAGAAAGAGTCCGGGCCAGCCCGCAGGGCAGCTGCCAGCC  
GCTTCCACCACTACCAGCAGCACCGGCCGAGTCTGGAGGGCGGGCGGAGCCCGCGACCCGCCGAGCGGGAGCGC  
AGGAGGTCCCGGCCCGGCCGCCCTTGGCCCCGAGTCTGCAGCCGACGCCGACGGAGGCCAGCCCCG  
ACCTTGCCCCGCTGCGGCCCGCGCTCCCGGCCAACCCCCCTCAGGAAAGAGGTTTTAAATCAAAGATGGGAA  
AATCGGAGAAAATTGCCCTTCCCATGGCCAGCTTGTTTCATGGTATACACTTGTATGAGCAACCAAGATAAACA  
GACAGAAAAGCAAAATATAACTTGCCTACTAACCAAGATCACTCTGCAAAAAGAAATGAAAACAACTTTGGCAGG  
ATTCTGTTTCATCTGACAGAATTGAGAAGCAGGAAAAAGCCCTTTAAAAATACCGAAGCAATTAAAAATTCGC  
ATTTGAAGAAATCAGCATTTCCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAGTTTAGTGATCCAC  
CTTCTCCTAGTGTTCTTCCAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACCAAAACAGGG  
AGCTGATGGCAGTACACTTAAAAACCCCTCCTCAAAGTTCAAACCTAGATTTCAGATTTTCAGTATGTGTGTA  
ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTGCAACATACAA  
TTGCAAAAGATGAGTTTAAAAAATTACATACAAACAGCTTGATTATATTTTATATTTTGTAAATACTGTATAC  
ATGTATTATGTGTATATTGTTTATCTTGGAGGTATATTTATAGTTTGTATGAAAGTATGATTTTGCCTGC  
CCACATTGCAGGTGTTTTGTATATATACAATGGATAAAATTTAAGTGTGTGCTAAGGCACATGGAAGACCGATT  
TATTTGCACAAGGTACTGAGATTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG  
TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTCTCTAAATTGAT  
TTGTAATCTGAAATTAAGTGAACAACCTCTATTTCCCATTTTGTCTAACTCAATTTCTGGTTTGGTATATATCCA  
TTCCAGCTTAATGCCCTCAATTTTAAATGCCAACAAATTTGGTTGTAATCAAATTTAAAAATAATAAATTTGGC  
CCCCCTTTAAAAATAGCTTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT  
TTGTGTGGTTGGATTTTTTGACTTCTACTTTACTGGCTGAGTGTGAGCCGCATGCCTGGCCATAATCTACATT  
TTCTTACCAGGAGCAGCATTGAGGTTTTTGAGCATAGTACTTGACTACTCTAGAGCTGAGACGGGAGCATCTCT  
TGAGCCTGAGAAGTGGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAAACAGAGCTGTCT  
CAAAAAAAGGCCAAGAGAAGTAAGGGAGACAGA

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**FIGURE 616**

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLIPQPRAP  
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAQQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS  
PAAAAGTEGASPDLAFLRPAAPGQTPLRKEVLKSKMGKSEKIALPHCQLVHGIHLYEQPKINRQKSKYNLPLTKI  
TSAKRNENNFWQDSVSSDRIQKQEKKFFKNTENIKNSHLKKS AFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW  
MGSTVENSNQNRELMAVHLKTLTKVQT

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FIGURE 617A

AGAGATGGGCTCTGCCATCACCATTGTTGCCAGTCTGGTCTCCAACTCTGGGCTCAAGCGATCCTCCTGCCTTG  
GTCTCCCAAAAGTGCTGGGATTACAGGTGTGAGCCCCACACCCGGCCTGAGTGAGTGGGTTCTGAATGGTGACTG  
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCTCATGTTGGAGACCTCCCAAGGTCAT  
GTGTCCTATAGGGGGCTGTTCAAGCTCCCTAGCCCTTAACTGTGTCAGGTAACTATATATATCCATGAAATG  
TGAATAATTAGTTATATAAATCTCTAAGCACTATTTTAAAAACAGCAATGTGATGCTTAACTCTCCCACTCT  
GTTCTGCTCCCCCTAGAAAAACCACTGATAACTCTTTTTTTTTTGGAGACGGAGTCTGGCCCTGCGCCAGGCT  
GGAGTGTAGTGGCCTGATCTCGGCTGCGGCTCATTTGAACCTCCGCTCGGGTTGAGCGAATCTCCTGCTCAGC  
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACACGCTGGCTAATTTTTGTATCTTTAGTAGGGACGGGTT  
TCACCATGTTGGCCAGAGTGTGCTTGAACCTCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAGTGCTGGGA  
TTACAGGCATGAGCCACCGTGCCCTGTCTAGAACCACTGGTAACTCTTAACTGXXAGTGTCTTAAAGAACGGAAG  
CATCTGGCTGGCATGAAATTTAGCATCAAGCAGAGTCCCTTTCTGTTCAGAGTGTGTAAAGTGCAATAAGATG  
AAGCAGGCACCAAGAAATCCTCGGCAGTGCCAAACGGGAAGACTCCGAGCTGCGAGGTGAACCGGAGTGTCTGTG  
TTCCTCAGCAAAGCCCAGCTCTCCAGTAGCTCGCAGGAGGGGTGTCAGAAAGTTTAAAGGCCACGACGCCCTG  
CCCTTTATTCCAGCCGACAAAGCTGAAAGATCTTACTTCCCGGGTGTTTAATGGAGAAACCGGCCACACGATGCTT  
AAACTCGGTTTTGAGTCCAGGAAATGAAAGGATTGGGACACCCCTAACACTACCCCTCAAAAATGGGCTCT  
CAGAAATTAAGCTGAAATACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTGTGGTGAC  
AGTGCTGCTGATGTGCTCAGTCAGAAAGAAATGGACAAAAACAGAAACAGGCGAGAGGAACAGGAAGAGG  
AGCATAAAATAGCACTTAAAGGTCAGAAAAAGAGTGCACGCCAGTATCAGCTACAGTTCTTTGGTGACGCCCA  
GATAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCCTGTTGAAATACAAC  
TGTTGGTGATTGTGTGTTCCAAAGTGTGCGGTTACCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTT  
CAGAGCTATACCAAACTTAAAGGTCAGAAAAAGAGTGCACGCCAGTATCAGCTACAGTTCTTTGGTGACGCCCA  
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGA AAAATTTATGCCAGGAA  
AGTCCCAAGCAGGCACCCACGAAAGCTGAGAAAAATTAAGCTATTGAAACCAATTTTCAGGGAATTTAGGGGCCGAG  
TGGGAATTTGGCATTTGTTCAAGCAGAAGAGCTGCAAGCTATGTCAAGGAGCGGAAAGCAATTCACCTTT  
CTCTATGTGGGGACAGGCTTCATCTCAACCTCAAGTAGCCAAGGAGGCTGGCATTTGCTGCAGAGTCTTTGGGA  
GAAATGGCAGATCTCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGATGCAATCCC  
ATGAAGAGAAGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCTTGGAGAGTCAACCCGACATAGGGAAGAGT  
ACTCTCAAAAGACGGCAGAGGCTGACCCAGAAAGAGGATAGGGTCTCCTCTGGGAGAACAGAACCCAGCTG  
TCCATGCCAGGAAGCAGGAAGGAGATGCAGCATCCAGTTTTTGTCTCTGTGCAAGGACAGAGGATGAGTG  
GTAGCTGAGCACCCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTACAGTGGAGTCTGCTGAGTGAG  
AAGCAGAGAGCAGCTACAAACCAAGTTTGCCCTGTTGGCCCTCTGCCAGGCTGAAGAAGACTCTGGTAATGTGA  
AATGGGAAAAAAGAAACACACAGGAGATACAGGACCTTACAGAAGATCTGAAGCTGAGGACACACCCAGG  
AAAAAGACTCAGGACGGACAAGCAGCTCTTCGGAAGAGAGACAACTACTGACAAAAACGCCAGAACAAAGCTCT  
TACAAAGCCATGGAGGACGCTCTCGCTCAAGAGCCAGGCGAGCAACGAAAAATCTGTCTGATGCATGTAAACCA  
CTGAAGAAGCGCAATCGGGCTTTCACGGCAGCATCTTCACTCTTGGGTTTGGGTAAGGTTTACATCTCTCTGCA  
TCCTTAACTGAGAAATGAGTCTCGGACAGCCCGGAGACGAGCCCTCGGAGTCCCATACGAAAGTGACAGCGAA  
ACACAAATCGAAGTATCTGTCTCATCCAAAAGTCTGAGCGAGGAGTGATGCCAAAAGGAGTATGTGTGCCAG  
CTGTGTGAGAAAGCCGGGACGCTCTGCTGTGAAGGACCTGCTGCGGAGCTTCCACCTGCGCTGCTTGGG  
CTTTCCCGAGGGCCAGAAGGAGGTTCACTGACGCGAGTGTGCTCAGGGATTCACTCATGTGTTGCTGTGAAA  
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACCTAGTGTGAAAAATTTACCATGAGGCTGTGTGAAAAA  
TACCCTCTGACTGTATTTGAGAGCCAGGTTTCCGCTCCCCCTCCACAGTTGTGTGAGCTGCCATGCTTCAAC  
CCTTCAAAACCAAGGCCGTCAAAAGGTAAATGATGCGGTGTGTCGCTGCCCCCTTGCCATACAGCGGGGAT  
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCTCCAACAGCATCATCTGCATGCCCATCTCACTGCTCGGAAG  
GGAAGGACACCAACGCCACGCTCAAGCTGAGCTGTGCTTCTGTGCTCTCCAAAGGGGGGAGCCTTCTGTGCTGT  
GAGTCTCTGGCAGCGGCTTCCACCTGAGCTGCTGAACATCGAGATGCTGACGCGAGCTGGTTCTGCAATGTAC  
TGCAGGGCTGCGGAAGAAGCTGCACTTCCAGGATATCAATTTGGGTGAAACTTGGGAATACAGATGTTGGTGGCGGAG  
GAAGTTTGCCATCCAAAAATGTTCCCCAAATATTAGAAAAATGAAGCAGAGATTGGAGAATCCCTGTGTTT  
TCTTTGGGCTCAAAGATTATTACTGGACGCATCAGGCGCGAGTGTCCCGTACATGGAGGGGACCGGGGACG

## FIGURE 617B

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTCTGTGAA  
ATTAAGCTTCAGAGGGGAAGCCCGAGAAAACAGGAGAGCGAGCGCAAGCCCCACCATAACAAGCACATCAAGGTG  
AATAAGCCTTACGGGAAGGTCAGGATCTACACAGCGGATATTTCAAGAAATCCCTAAGTGAACCTGCAAGCCCCACA  
GATGAGAATCCTTGTGGCTTTGATTCGGAGTGTGTGAACAGGATGCTGATGTTTGAAGTGCCACCCGAGGTGTGT  
CCCGCGGGCGAGTGTGCCAGAACCACTGCTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT  
GGCAAAAGGTTGGGGCTGGTCCGCAAGAGGGGACATCAGAAAGGGAGAATTTGTAAACGAGTACGTTGGGGAGCGTG  
ATCGACGAGGAGGAGTGCATCGCGGAGAAATCAAGCACGCACAGAGAAGCATCAACCACTTCTACATGCTCACT  
ATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAACTACTCTCGATTTATGAATCACAGCTGCCAGCCCC  
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCCTGTTTGGCGTCTGTGACATTTCTGCA  
GGGACGGAGCTGACTTTTAACTACAACCTCGATTTGTCTGGGCAATGAAAAACCGGTCTGCCGGTGTGGAGCCTCC  
AATTGCAGTGGATTCTCGGGATAGACCAAAGACCTCGACGACCCCTTTCATCAGAGGAAAAGGGCAAAAGAC  
AAGAAGAAAACAGAGCGCGCCAGAGCAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGCTTCCGCTCGCGT  
GATGGCGGGCAGCTGGTGTGTGTGACCGCAAGTTCTGCACCAAGGCCCTACCACCTGTCTGCTGGGCCCTTGGC  
AAGCGGCCCTTCGGGAAGTGGGAATGCTCTGGCATCATTGTGACGTTGTGGTGCAAACTCTGACTTCATTTTGC  
CACCTCTGCCCCAATTCGTTCTGTAGGAGCACGAGGACGGGACAGCCTTCACTGACCCCGGAGCGGGCGTGC  
TACTGCTGTGAGCATGACTTAGGGGGCGGCAATCGGTGAGAAGCACCAAGACTGAGAAGCCCCCCCCAGAGCCAGGG  
AAGCCGAAGGGGAAGAGCGCGCGCGGAGGGGCTGGCGGAGAGTACAGAGGGGCAATACGCCAGGCGCGCGCT  
TGGCCGGATCAGGGCGGTGCAGGCGCGCGGCCCTGCTCGGGGAGAGGGCGAGCATGAACCTGCCCCGAGGA  
CCGAGCTCGAGCGCGCAGGACACAGAGCTACAGGCCCTCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT  
CAGCAGCGTCCGCTGCGTCTGACTGATGACGCTCTGAGCCAGCTCAGCGTTCCTGGACAAACAGCCTCACTCC  
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCACTCATTTTTTTAGGTTAAAGTTA  
ATTGGCATATGGAATGTTTAAATCTCTCTGAAATGTGTAGCTAGGCTTTTCCCAAGGGTCGCTAGAAATCTGT  
CTTCGCGTTGCCCTCTTTGCGTCTCTCAGCGCGCTGCCACTCGGGAGAGGCTGGGTGAGGCCCCGTGTGAGGACT  
GACCTTGGATTCTCGAAACTGCCATTTGTGATCACTTACTCTGCTCTTTGGTGGCTGTATCATTTTGTGTACTAA  
TGTGAATTTGTTCTCAGAAACGCTTCTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGCT  
GTTGTAAGATTTCTCCCGTAGTTTTTCTCTCATGGATTTGAATGAAATGCCAATAACAGCTCCACTTTCAAC  
GTGTAGTTTTACGCGGAGCACTTTCAGGGCTGGCGGGTGGGCCCTACTTCTCACTGGGCCCTATCTCTGAACT  
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTTCATTTGGCTTTCTTTTACAGGTTTCTGA  
TTTTTTATCTCAATATTTTTGCTAAACCTATTTCAAAATCACCACGAGTGAAGTGTGTGTTTACTGATGGG  
GCCTGAGCTCCATGGCGAAAGGAGTACTTTGCAAGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC  
AACTTAGGGAGCCCCGTAGGGCGCTCAGGCCCCGGGGACCCAGCAGCTGGGTCTAAAGAGAGACGGAAGCTAG  
CTCTCTGCCAACAGAGTGGCTTCAACTCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT  
CAGATGTGCCCTCTGCCAGGCGACCTACTGAGAGGTGCGGCTCTGGGGTGGAGGCTGCTGGCAGGTGTGCGT  
GCCCTGACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACACCCACTCTCTGTGAGATTTCACTTTAGTT  
TTTAAAGGTCTGAGTTCTACAGAGTGAGACCTATCTACTGTAGTACTACATAGTTTTTAAAGACTTGGTCTTTTT  
TTGAGGGATCCTTGACCTGGGAAAGTCTGGAGCACCTTGAGAAGGGGGCACCATGTGTGGCTTTGCCACAGTGTG  
CTGAGGGGCTGCTGTGCTGGGAGGGAGGAGAGAACATTCAGCAGCAGGTGCTTTTTATGGCCCTTTCTTAA  
TAACCTAAAGGGGACACATCCACTCTTGACAGAGAAGTTTACAGAACTCCCTTGAAACCTGCTGAGGCTCTG  
TTAAATTTTCTGTGGCATCTTTATGCTTGGTAAAAATGCAAGTGTCTTTGGACCTGAGAGTGGCTACTCCGCT  
GTTTTGTGACCTGTAAGCGTGGGGTTCAGGGGTGTGTGGCCCTGCAAGGTCACGCTCCCTGAGCATGACTG  
GAAGTTTCACTGGCTGGTGGCTTCCCTTCTCCCATCAGGTCGCCCAAGATTTAACTACACAGAGGACCCAGG  
GGAAACGAGCTGTGTAGCCACTGACTTGTCTGCGCGGCCGTGGCCCTCTGAGGGGACCTCGCCGGTTAAGACAGG  
TGGGAGTAGTGCTTTCCAGTTCAGACTTAACTTCTCCAAAGTGTCTTGAAGAAATACAGATGAGTCCGCTATAGA  
TTTTATGCTCTTATGATGCCCTAACTTGAAGGTTGTTCTAGGGACAGGCGGGCAGTGTCACACACACCTT  
AGAGTCGAAGGCCACGAGGCGCGGTGTCACTTGCCCAAAAGATCCCTTCGGGAGGTAAGGACTACCAATGCT  
TACGTCAAAACAGCAAGATCGGCTTTGCAAGTGTCTTGGGAGCAGATGATTAACCTATTTTGTGTGGACAGT  
AGTGAAATCTGTGATTTTAAATCGCTTTGATAAATACTTCAAAATTTATGATTTTTCTGAAGGAATAATGCAA  
ACATTTTAAATATGTTCTCCCTTCTCCAAAACCTGTTAAACTAATGAGCAAGTAACTAACTTTGAATGTCT



**FIGURE 617C**

CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC  
TGGGGCTGACCACGCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCAGCTTTGTTCTGAGGAC  
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAAATGTGAAGCAAAACAAAAACCGCCCAATCCC  
TCAGGATTCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGTGTGCGCCACAGGGGGATG  
TGCCGAATGGGCAGCTTAAAAATGGTCACTGTGGGGGAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG  
TCCGTCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCCATGGCTGGCTGGTCCCCTTCGCAGTGTTGTCTG  
TCTTGACATCTAAACCCGGCGTGTGCAGTGCCCATCTTCAGGACTACCTTATTTCCAGAATTAACCTGTTT  
TATAATTCAAGTTAATGCAATGACTGTCACTGTGCCAAATATCTTGATCCTGTGAGTGTAGTTGATGACTGTTTG  
TTAGTCAGTAGAGTAAATGCTGTGTCCACGGGGTGTACAGCCTCACCATACCTGTTGAGGTGTGAAATGCCC  
CGTCAGAAATTAATACAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTGAGATTCCTTT  
TAGGAATACTGGTGCTGTACCAGGTTTGATAGTTAGACTTAAAACTTGAAATTCATTTTTGGGGGGAGGGA  
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAAATAGCATTAAAAATGGAAGCTGTGTTTGAAAA  
TTGTGTATGAGTATTTTTGTATTAACCAATTTTAAA

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**FIGURE 618**

MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRCSVFLSKAQLSSSLQEGVMQKFNGHDALPFIP  
ADKLDLTSRVFNGEFGAHDAKLRFESQEMKGIGTPPNTTPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD  
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCNPTRGRDKDHLKYNVGD  
VWSKVSQYPMWPCMVSADELLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ  
APTAKAEKIKLLKPISGKLRAQWEMGIVQAEAAASMSVEERRAKFTFLYVGDQLHLPQVAKEAGIAAESLGEMAE  
SSGVSEEAENPKSVREECIPMKRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKTIVSMPR  
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQARYNTKFALVAPVQAEEDSGNVNGKK  
RNHTKRIQDPTEDAAEDTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSAQATKNLSDACKPLKKR  
NRATAASSALGFSKSSSPSASLTENEVSDSPGDEPSESPIYESADETQTEVSVSSKKSERGVTAKEYVCQLCEK  
PGSLLLCEGPCGAFHLACLGLSRRPEGRFTCECAGIHSFCVCKESKTDVKRCVVTQCCKFYHEACVKKYPLT  
VFESRGFRCLHSCVCHASNPSNRPSPKGMRCVRCPVAYHSGDACLAAGCSVIASNSICTAHTTARKGKRH  
HAHVNVSWCFVCSKGGSLCCESCPAAFHPDCLNIEMPDGWSFCNDCRAGKKLHFQDIWVWKLGNRWPAEVCH  
PKNVPPNIQMKHEIGEFPVFFFGSKDYWTHQARVFPYMEGDRGSRYGQVRGIGRVFNALQEAEARFREIKLQ  
REARETQESERKPPPYKHIVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE  
FCQNQCFTKRQYPETKIIKTGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD  
RIIDAGPKGNYSRFMNHSCQPNCELTWKTVNGDTRVGLFAVCDIPAGTELTFNYNLDCLGNEKTVRCGASNCSS  
FLGDRPKTSTTSSSEKGGTKKKTRRRRAKGEGRQSEDECFCRGDGGQLVLCRKFCTKAYHLSCLGLGKRPF  
GKWECPWHHCDVCGKPTSEFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSRTKTEKPPPEPGPKG  
KRRRRRGWRRVTEGK

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**FIGURE 619**

AGGCTGTCGACAGATTGTAAAAATGGCAACAAATGAAAGTGCAGCATCTTTAGTTCAGCATCCTTGGCTGTG  
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTAAAAATGCTTGGAACTATATGTTGAAT  
AATTATACAAAGTTCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTCTTATTCTGTTA  
CCTGGATTTTATTTCATTTATACCTTATATGAAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAA  
AACCAATGGAAGTGTTCAAAGTCTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTGTGGAACCTAT  
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTCTTTTGGCAAGATGC  
TTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG  
TATATTCATAAAGTTCATCATGAGTTTCAGGCTCCATTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT  
CTAATCTTGGAACTGGATTTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATCTCTCTTTGGGCATGGGTG  
ACCATTCGTTTATTAGAAACTATTGATGCCATAGTGGTTATGATATTCCTCTCAACCCCTTAAATCTGATCCCT  
TCTATGCTGGTTCTCGGCATCATGATTCACCACATGAACCTTCATTGGAACATGCTTCAACATTTACATGG  
TGGGATCGAATTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT  
GAATATAATATCTCAGCTAAACCTTTCCTGAAAGATAAACGTTTTCTCGAATTCAGAAACTAGTAGCTAACATTGCT  
TCTGGAGAGCAGAAATAAGCATGTCTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTC  
CTAGTGGGAACCTTTTCTACTTTACCTACAAGTTCTATATGTAGAAATGAATAAATATATATTTAAGTACAGT  
TTTCATGAGGAAGTTTTTAAAGACCATGTTCTTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT  
GGCTTTTCTCCAGTAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT  
TTCAGAAAATTCTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTATTTTTTTTTGGAGACAAAAGCCACA  
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAAGTTCGAAGCAATTC  
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCAGCCAGCTAATTTTTGTATTTTGTGA  
GAGATGGGGTTTCACGATGTTGGCCAGGCTGGTCTCAAACTTCTGACCTCAAGTGATCTGCCACCTTGGCCTCC  
CAAAGTCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTGAATTCACCTA  
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCCAATCAAGAAAAGC  
CGGCACCAAGAACCTCCATTCTAATCTAGAGCTGACCAGTTTGAGCTGATTCTCTTTGAAGAGTCTTCTTGA  
TTGCAGTGCAGTACTGGCATTCTGAATGGATGTAAGTGGAGTATTTAGTCTAAAGGCTTTTCAAATTAATTGA  
ATTTTTTAAAAATTGAGGAGCTTTATTCTATTACCTTCCATTTTGTGTGAAAAAATTTTTT

**FIGURE 620**

MATNESVSIFSSASLAVEYVDSLLENPLQEPFKNAWNYMLNNTKFKQIATWGS LIVHEALYFLCLPGFLFQFI  
PYMKKYKIQKDKPETWENQWCKFVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLARCFGCAVIED  
TWHYFLHRLHHKRIYKYIHKVHHEFQAPFGMEA EYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI  
DVHSGYDIPLNPLNLIPFYAGSRHDFHHMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

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FIGURE 621A

GCGGGGACCGCAGCAGCCCGGGTTCGCCGTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCCGGCGG  
 CGGCGCGGAACCCCGAGCGCCCGGGCGCACCCTCGGTTCCCGGAGCGCAGCGCGGCGCAGCAGCCCCGGTTCGGG  
 CCGCGCGCGCCTTAGGCTCGGCCCGCGCGCTCGGGGACCCCGACTCCCGGGCCAGCAGCGCGCTCCCCCGCGCG  
 GCCCGAGAGCCCGAGGAGCAGCGGCCGAGAGCCCGGGGAGGGGGCGGCCACCGCCCGCGCGCGGCGACTCTCT  
 AGGAGCCCCAGAGCGCGGAGGGCGCGGCGCGCCGAGCGGTGCTGGCCCCCGCGGGCTCCCCGGACCTTCCCCAC  
 CGCTGGGCGCCAGGAGCGGTGATCGGGCGGGCGGCCGGCGCAGAGGTGGGAGGAGGCGCCCGCCCGCGCGCGC  
 CCCCCTCGCCCTTCGCCCTCAAACCCCTTGGCGCCCGGGCCCGGGCGCGCGCTGAAGCGCCCGCGCATCGCGAG  
 CCGCGCGCGCACGGGCGCCCGGGGCGCGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAACA  
 AACACAGCGTTCGCCAAGTTCGGCTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA  
 CCGGGCGGGCGCGCAGCGCGCAGCGCGGGCGGGGGTTCGGCGCCGCAACCGCGCGGCTCGAGTACTACGAG  
 AGCGAGAAAAAGTGGCGGAGCAAGCGAGCGCGCGCAACGGGTGATCGCTCTCGACTGCTGCTGAACATCAAC  
 AAGCGCGCGCAGCGCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCGGTGGCCGCGGAG  
 AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTACCGACCTGGTACGAGGGGCGCGCGGCGCGCGGAGAC  
 GCGCCCCCGCGCGCGCGCGCGCGCTCTGACGCGCTCTCTGCCCCGCGCTTCGGGCGCGCTTCGGCGCGCG  
 GCGGGGCGCGGACAGCTACGGGCTGGTGGCTTCGCCACGCGCGCTTACGTGTGGAGGTGGAGCTGAACCTG  
 AAGCCCAAGGGTTCGGGCGCGCAGAAGCTTACGCGGGGTGTACCGTCTGTGCTGTTCGCGCGCACCATTGCG  
 TTCGTGAAGCTCAACTGCGAGAGCGCTCGGTGACGCTGACGCTCATGAACATCCGCGCTTCGGCGCACTCGGAG  
 AGCTTCTTCTTATCGAGGTTGGCCGCTCGGCCGTCACAGGCCCGCGCGAGCTGTGGATGACAGCGGACGACTCG  
 GTGGTGGCGCAGAACATCCAGAGACCATTCTGGAGGCCATGAAGGCGCTCAAGGAGCTTTCGAGTTCGGCGG  
 CGCAGTAAGAGCCAATCGTCGGGTTCGTGGGCCACGCAACCCATCAGGCTTCGGGCGCGCGCGCGCACCAACAC  
 CTGTGTCAACTGCCCCCAGCAGACGGGCTGTGTGCGCGCTCGCGCACGCAAGCTGGCCGCCACCCGCGCG  
 GCGGCCAAGTGCAGTCTGTGCGGGTTCGCGACCGCGCAGCGAGGGCGACGGCGCGCGGCTGCGGGAGCGGGCGG  
 GCGCGCGCAGAGCTGGTGTGGTGGTGGGAGCCCCCTGAGCCCCGGGCGGTGCGCGCGCCCTGAGCCGCTCG  
 CACACCTGAGCGCGCGGTTCGCGCGCGCGCGGAGAGGTGGCGCTGCTGCGCAGGGGGCGCGCTGCAACAC  
 AGCCGCTTCATGTCATGCCGTGGCGACTCGCGCGCGCGCGCACCAAGCGCGGCTCCCTGTGCTCCAGCAGC  
 GGCCACGGCTCGGGTCTTACCCGCGCGCGCGCGCGCGCACCCGCTTTCGCGCATCCGCTGCACACCGCCCG  
 GGCCAGCGGCCCTCCAGCGCGCAGCGCTTCGCGCTCGGGTCCCCAGCGACCCGGCTTCATGTCTCCCTGGACGAG  
 TACGGTTCAGCGCCAGGCGACTTCGCGCGCTTTCGACGCCACCGAAGCAACCGCCGAGTCCATCGCGGAGAGC  
 CCCCCGGCCGAGACGCGCGCGCGCGCGCTTACGGGTACATGACCATGACAGGCCCTGAGCCACTGT  
 GGCGCTCTTACCGCGGGTTCGCGGGGACGCGGCCAGGACCTGGACCGAGGGTTCGCGAAGAGGACCTACTCC  
 CTGACCAACGCCAGCCGCGCGCGCGGCTTCGCGGGCAGTGGGAGCGGCGAGTTCGAGGAGCGAGCAGCTACATGCCC  
 ATGAGCCCCGCGAGCGTGTCTGCCCCCAAGCAGACTTTCGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGT  
 CCTTCTGCGGGGCTTCGCGGGGCGACGACCCACTCTGCGCGCGGCGAGGACATTCGCGCGAGCGGGGCGGCTAC  
 AAGGCGAGTTCGCCCGCGAGAGCTCCCCGAGGACAGTGGGTACATGCGCATGTGGTTCGGGTTCGAAGCTGTCC  
 ATGGAGCATGCAAGTGGCAAGCTGTGCTGCCCAACGGGAGTCTTGAAGCTTCGCCAGCGAGCGGCTACACCG  
 GGCACCCCGCGCGACTTCTTCTCGCAGCCCTGCAACCGCGGGGAGCGCTCAGGAGGCGTTCGCGGCTGCTGCT  
 TACAGCTCTTTCGCCCGCTCTTACAAGGCCCTTACACTGTGGCGGGACAGCAGCAGTACGTGCTTACGAGC  
 TCCCCGTCGGCGCATCTTGGAGGAGGAGCGTTCGAGGCTCAGGCGCGCGGCGCGCGCGCGCGCGCGCGCG  
 GCCTTCGGGGCGCGGCCACGCGAGCCCTTACCTGTAGTGCCTTCGCGCGTGGCGGCTTACGGCGCGCGCGGTA  
 GGTTCCTTGGGCGACGCGCGCGGGGTGAGGCCACGCGCTGTGCTTCGAGGGGCTGCCACGCTGCGCCAGC  
 ATGACAGGATACCCACTGCGCACCGGAGGCCAAGAGCCCCGCGGAGTACATCAACATCGACTTTGGCGAGCCCGG  
 CGCGCGCTTTCGCGCGCGCGCGCTTCCCTGCTGGCGCTCGCGCGCTCTGCTCTCTGCTCTTCTTCGCGCAGC  
 CCGCGCTCTGCTGCTGGCTCAGCGACCCCGGCGCACGACGCGCGGCTTCGCGCTCTCGACTAC  
 ATGAACCTCGACTTCAGCTCCCCAAGTCTCTTAAGCGGGCGCCCGAGCGGCCACCCGTTGGGCTCTTGGAC  
 GGCTCTCTGCCCCGAGGCTCTCTCCCGTATCGCGGTTCGCCCCGCGTCCGTCGCGCTCCCGTCTGCTGCT

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FIGURE 621B

CTGCAGCGCCGCCACCGCCGCCGGGGGAGCTGTACCGCTGCCCGCCGCTCGGCCGTTGCCACCGCC  
CAGGGCCCCGGCGCCGCTCATCGTTGTCTCGGACACCGGGGACAATGGTGACTACACCGAGATGGCTTTTGGT  
GTGGCGCCACCCCGCCGACCTATCGCGGCCCGCCGAGCCGAGAGCTGCCGCGTGCCGACGCCGACGCTCG  
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTGCGGAGTCGAGGCCCTTCTGTGACGCCACGCCGCCCGGAC  
CCCCACCGCGGCCCAAGGTCATCCGCGCAGACCCGAGGGGGGCCGCCGCCACAGTTCCGAGACCTTCTCC  
TCCACACGACAGCTACCCCGCGTGTCCCGCTCTTCCGCCACAACCCCAAGCGCCACAACTCGGCCTCCGTGGAA  
AATGTCTCTCTCAGGAAAGCAGCGAGGGCGCGGTGGGTGTCCGCCCTGGAGGGGGCCGACGAGCCCACTCC  
CCACGACAGTTGACGCGCGGCCCTTTGGCACCCGAGGCCGCCGTGGACCCCGGGTCAGCCGGGGGCTTG  
GTCGGTTGTCTCGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGGCTCCAGAATGGTCTCAACTAC  
ATCGCCATCGAGGTGAGGGAGGAGCCCGGGCTGCCACCCGAGCCGAGCCGCCGCCGCCGCTTCTCAGCCG  
GGAGACAAGAGCTCTTGGGCGGACCCGAGCGCTCGGGGGTCTCATCAGCGCTGTGGGCTCGGCAGCACCGCC  
GGCGGGTGCGGGGGGCCGGTCCCGGTGCCCTGCCCTGCCAACCTACGCCAGCATGACTTCTTGCCAC  
CACTTGAAGGAGGCCACCATCGTGAAGAGCTGAAGATCTGTCTGGCTTTATCACCAGGATGTACATGTACAGAGA  
ATATCATTAAAGAAGACGCTCAGCGCTGTTTCAGCCCGAAGCTGCTTGCAGTTTTCTTTGGATCTGAGCAATG  
ACTGTGTTTGAACATCTGTGGACTCTGATAGATGGGCGACAACAAGGCAAGGTCACTGCCTCTTCCCTGTG  
TCCCGGATGGGCATTTCATCTTGTGCTGTTTGCCTTTTGTGTTTTGTTTTGTTTTAAACAAAATAGCTGAAGAAGTT  
ATTCTCAAGAAAATGGATGTTTTTCATTGGCCTTCTTAAATTGTGGCCAGTGCTTTTAAATTTCTTCTTCTTTC  
CTTTTGGCAAGCAGATATAACCTCAGCATGCTAGGAGAGTGACCCGTAACCTATGGAAGTGGTAAATCTGGT  
ATTTACTGGCTTACACTCAAACGACCACAGTCTTACCTCAGTTCAAGGTAAGCCGGATTTCGTGGCGGGGGT  
CCACGAGACCTCTGTAGTAGCCCTCGCGCTGTGTGTCTGGAGCGCGTCTCGCCTTATTTAAATGGTCCAGTAG  
ACAGCTGCTTGTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCAGTGTGGGACTGACAT  
TTCATCAATGGAAGTGAATTTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATATTATATGTAAGTGAAG  
CAACCTACTTTTGAAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT  
CTCTTTTTTACCTTTAACAGACTGTTTAACTTCTCGATGTAGATGTTATGTAGGTACTTCACATTGCAAAACGC  
CTTTTATTCTATTACAAGCTCAGATGCTCTGCTCTCCTGAATCTTGGGCAAGCTCTTCTGTAAACCAAAATCC  
CTGTAGGCGTGCTAGCAATTCAGGGTGGTCCGGGTTTGGCAGATTTGATTTTTAAAAAATGATTAATCTTAAAT  
AAAAATGTTATTATGTCAACCAAGTGAGGCTGCCCTGAACAAAAAAGAAAAAGAAAAAAGAAAAAGGAAAGA  
AAGAACTGATAAAAAGAGGCATCCAGCCCTATGTATTGATGGAAGAAAAAGAAAGAAAGCAATCTCGCA  
GTACATGTACTTGTGCAAAAAAATTCGGGACAAGACTACCTTGTTTATGTTTTTCAGTATCTGAAAAATACCAG  
GTGTGGCAGTTCTCGCAGATGTTACCTAAAACTGCTGAACCTTGACCGGCAGAAATGTTCTGCCGTTTTCTGCTCC  
CTCGACACTTGGATTGGAGGGCTGTCGACCTCTCCTCCCGTGGGGGCTTCCCAAGTGCCATCTCTCTGATAGTC  
ATGGAGAGTTTACACTAATCTATCGAGATGTAAGTTGTGGTTTTGTTTTGTTTTTGTGTTTTTAAAGAAATATATA  
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTATAGAGGAAGACCAAAA  
AATTCAATGCTTAAAAATATTTAAATGGCAATGCAAAAGTCTTCTGCTTCCGTGCTGAACCTTTAGAACAGAG  
GATTGTATTGCAAGACAAAGTTGAATGTAAGTGATCTCCCTGAACATTTTAAAGTTTTACTTTTCTGAAATTA  
TACATCACAGCAGTGATAGGCCATATAATGTTAGCTGGAAGGTCAATTTAGTGATGATATACCTTTATTAAGA  
TGTATAAAACATCTGGAAGTTTTTATTAGTTTTGGGAAATAGGCAICAGTGGGTGGTATTGCTTTGTAACCTCC  
CCCGAGTCAGATAGGGGACTGAATATGAGACCTCGTGAAGCAGTGATTTGACGCATATTTAACTCGCCCTCTATC  
CGTAGAGTAGTCATGACACTATACAGATGGTTCGTGTTCTACTGCACTGCAAGTAAAAACAGCAAAATACACAGATGA  
TAATATGCTAAATTTTCTCTATCTGTACATTTCAAAAAAGGCATATGCAATTTACATTTTAAATTTAGTT  
TACAGAATGGAACCAAAATGTATAAATGTTATGTTGCTAAAACTTCAAAATGTATATTGGGCTTTGTACATTT  
TGCTGACTTACCTTAAATTTAAAAATTTTTTGTATATAAACTTTAACAGTTTAAACAGTGTTTTCTCTTTT  
GGGTACGTATTGTTCTCGGATACAAGATGTTAAATATATTTCTGCTATGTGATATGACAGAGACACTTAACT  
ATCTTGCTCTGCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGATAAACTGG  
ACTAGAATAGTGCAATTGATTAGTCTGTATTGATCATGGATGCCCTCTTAATAGCCATATGCAATAAAATAA  
GTACATTTATTATGAATGAA

## FIGURE 622

MASPRRHGPPGPASGDGPNLNNNNNNNNH SVRKCGLRNEEHGHRKFVLRGPGAGGDEATAGGGSAPQPPRL  
YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDEYFAVAENEQEQEGWYRALIDLVS  
EGRAAGDAPPAAPAAASCSASLPGALGGSAGAAGEDSYGLVAPATAAYREVQVNLKPKGLGQSKNLTGVYRLCL  
SARTIGFVKLNCEQPSVTQLQLMNIRRCGHSDSFFFIEVGRSAVITGP GELWMQADDSVVAQNIHETILEAMKAL  
KELFEFRPRKSQSSSGSSATHPI SVPGARRHHHLVNLPPSQTGLVRRSRDTS LAATPPAAKCSSCRVRTASE  
GDGGRAAGAAAAQRLVSVAGSPLSPGPVRAPLSRSHLTSGGCGGRGSKVALLPAGGALQHSRSMMPVAH  
SPPAATSPGSLSSSGHSGSYPPPPGPHPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGSSPGDL  
RAFCSHRSNTPEIAETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPAR  
QRPVQPSSASLDEYTLMRATFSGSAGRLCSPCASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMP  
MTPGAAGFAGSGSGSCRSDDYMPMSPASVSAPKQILQPRAAAAAAAVPSAGPAGPAPTSAGRTFFPASGG  
GYKASSPAESSPEDSGYMRMWCCKLSMEHADGKLLPNGDYLNVSPSDAVITGTPPDFSAALHPGGEPLRG  
VPGCCYSSLPRSYKAPYTCGGDSDQYVLMSSPVGRILEEERLEPQATPGPSQAASAFGAGTQPPHPVVPSPVRR  
SGRRSGFLGQRGRAVRPTRLGLEGLPSLP SMHEYLPPEPKSPGEYINIDFGEPEARLSPAPPLASAAS  
SSSLLSASSPASSLGSTPGTSSDSRQRSPLS DYMNLDSSPKSPKPGAPSGHPVGSGLDGLLSPEASSPY  
PLPRPSASPSSSLQPPPPPPAPGELYRLPPASAVATAQGPGAASSLSDTGNDGYTEMAFGVAATPPQPIA  
APPKPEAAARVASPTSGVKRLSLMEQVSGVEAFLQASQPPDPHRAKVI RADPQGGRRRHSETFSSTTT  
VTPVSPSFAHNKPRHNSASVENVSLRKSSEGGVGVGGGGDEPPTSPRQLQPAPPLAPQGRFWTPGQPG  
GLVGCPSGGSPMRRETSAQFQNLNYIAIDVREEPGLPPQPPPPPLPQPGDKSSWGRTRSLGGLISAVG  
VGSTGGCGGPGGALPPANTYASIDFLSHHLKEATIVKE

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**FIGURE 623**

GTCAACCAAGTGAGGCTGCCCTGAACAAAAAAGAAAAAGAAAAAAGGAAAGAAAGAACTGATAA  
AAAGAGGCATTCCAGCCCCTATTGTTATTGATGGAAGAAAAAGAAAGCAATCTCGCAGTACATGTTACT  
TGTGAAAAAATTCGGACCAAGACTACCCTTGTTTTATGTTTTTCAGTATCTGAAAAATACCAGTGTGTGGCAGTTT  
TCGCAGATGTTTACCTAAACCTGCTGAACCTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCCCTCGACACTTGAT  
TGGAGGGCTGTGACCTCTCCTCCCGTGGGGCTTCCCCAGTGCCCTATCTTCTGATAGTCATGGAGAGGTTAC  
ACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTAGAAAAATATATATAAATATATAATA  
GATATCTATCGCTATAGAATAATGCATTAATAAATGAGGCTTTTTAGAGGAAGACCAAAAAATTCATGTCTT  
AAAAATATATTTAATGGCAATGCAAAAGCTTCCCTGCTCCGTGCTGAACCTTTAGAACAGAGGATTGTATTGCAA  
GACAAAGTTGAATGTAAGTAGTCTCCCTGAACATTTTTAAGGTTTTACTTTTTCTGAAATTATACATCACAGCAG  
TGATAGGCCATATAATGTTAGCTGGAAGGTCAATTTTCAGTGATGATATACCTTTATTAAGATGATAAAAATC  
CTGAAGTTTTATTTAGTTTGGGAATAGGCATCAATGGGTGGTATTGCTTTGTAACCTCCCCCAGGTACGATA  
GGGACTGAATATGGACCCTGCTGAAAGCAGTGATTGACGCATATTTAACTCGCCCTCTATCCGTAGAGTAGTC  
ATGACACTATACAGATGGTTTCGTGTTCTATACIGCAGCTTAAACAAGCAAAATACACAGATGATAATATGCTAAA  
TTTTCCCTATCCTGTACATTTACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTTTACAGAAATGGAA  
CCAAAATGTATAAATGTTATGTTTGTCTAAAACCTTCACAATGTATATTGGGTCTTTGTACATTTTGCCCTGACTTA  
CCTTAAATTTAAATATTTTTTGTCTATATAAACTTTAACAGTTATTAACAGTGTTTTCTTTTTGGGTACGTATT  
GTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAGAGACTTAACTTATCTTGCTCTG  
TCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGGACTAGAATAGT  
GCATTTGATTTAGTCTGATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAGTACATTATTT  
ATGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG



GGGTGATTACAGCGCCGCGAGGCGGAACGGGCCGAAGAGGAGGAGGGAGAGCCGCTCCGCGCCTGGGCTCCC  
 GGGGTGGCACGAGCCCGCGGCGGAGTGCAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCGCGCGG  
 GGCCCCCGAAGCCATGAGGAACCGGCACACCAAGACGGTGGAGGAGGTGCTGGGCCACTTCGCGCGTCAACAGGAG  
 TACGGGCGCTGAGCCTTGGGAACAGGTCAAGAGCTTAAGGAGAGATGGGGCTCCAAACGAGTTACCGGCTGAAGAAGG  
 AAAAAACCTTGCTGGAACCTTGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT  
 ATCTTTTGTTTTGGCTGGTTTGAAGAAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCTTTTGTATTTTACT  
 CATATTAGTAGCCCAATGCAATTTGGGTGTATGGGAGGAAAGAAATGCTGAAATGGCCATCGAAGCCCTTAAAGGA  
 ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAGAGTGTGACGCGGATTAAAGCTAAAGACATAGT  
 TCTGGTGATATTGTAGAAATTTGCTGTTGGTGACAAAGTTCCTGCTGATATAAGGTTAACTTCCATCAAACTCAC  
 CACACTAAGAGTTGACCACTCAATTTCTCACAGGTGAATCTGTCTCTGTGCATCAAGCACACTGATCCCGCCCTGA  
 CCCACGAGCTGTCAACCAAGATAAAAAAGACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG  
 AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG  
 AACACCCCTTCAGCAAAAAGTATAGTAATTTGGGGAACAGCTTCCAAAGTCATCTCCCTTATTTCGATTGCGAGT  
 CTGGATCATAAATATTGGGCACCTTCAATGACCCGGTTCATGGAGGGTCTGATGAGGAGTGTCTATTACTACTT  
 TAAATTTGCACTGGCCCTGGCTGTAGCAGCCATTCTGAAGGCTGCGTCACTCATCACCACCTGCCTGGCTCT  
 TGGAACTCGCAGAATTTGGCAAAAGAAATGCCATTGTTTCGAAGCCTCCCGTCTGTGGAACCCCTTGGTTGTACTTC  
 TGTATTCTGCTCAGACAAGCTGGTACACTTACAACAACACAGATGTCAGTCTGCAGGATGTTCAATTTCGACAG  
 AGTGGAAGGTGATAGTTTCTCCCTTAATGAGTTTACCATAACTGGATCAACTATGACACTATTGGAGAAGTGCA  
 TAAAGATGATAAAACAGTGAATTTGTCACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA  
 TGACTCTGCTTTGGATTACAATGAGGCAAGGTTGTGATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC  
 TTGCCTAGTAGAGAAGTGAATGTATTGATACCGAATTTGAAGGCTCTTTCTAAAAAGAACGTCGAAATGCCCTG  
 CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCACCTAGAGATTTTCACTGTACAGAAAGTCAATGTCCGT  
 TTACTGTACACCAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGTCTCTGAAGGTGTCA  
 TGACAGGTGCACCCCACTTCGAGTTGGAAGTACTAAGGTTCCATGACCTTGAGGATCAACACAGAAGATCATGTC  
 TGTCAATTCGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCGTGGCCCTGGCCACTCATGACAACCCCACTGAG  
 AAGAGAAGAAATGCACCTTGAGGACTCTGCCAACTTTATTAATAATGAGACCAACTGCACCTTCGTTGGCTGGCT  
 GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCCTCCGTTGAAGCTGTGCCGGAAGCAGGACATCCGGGTCA  
 CATGATCACTGGGGACAACAAGGCGACTGCTGTGGCCATCTGTGCCGCATCGGCATCTTCGCGCAGGATGAGGA  
 CGTGACGTCAAAAGCTTTTCAAGGCGCGGAGTTTGTGAACCTCAACCCCTCCGCGCAGGAGGACCTGCCTGAA  
 CGCCCGCTGTTTTGCTCGAGTTGAACCCCTCCCACAAGTCTAAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT  
 TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTTGCTATGGGCTG  
 TGGCACTGCGGTGGCTTAAACCCGCTCTGAGATGGTCTTGGCGGATGACAACCTTCTCCACATTGTCCTGGCTGCGCT  
 TGAGGAGGGGCGGGCAATCTACAACAACATGAACAGTTCATCCGCTACCTCATCTCGTCCAACGTGCGGGGAAGT  
 TGCTCTGATTTTCTGACAGCAGCCCTTGGATTTCCGAGGCTTTGATTCCTGTTCAGCTGCTCTGGGTCAATCT  
 GGTGACAGATGGCCTGCCCTGCCACTGCACTGGGGTTCAACCTCTGATCTGGACATCATGAATAAACCTCCCGG  
 GAACCCAAAGGAACCAATTGATCAGCGGGTGGCTCTTTTCCGTACTTGCGTATTGGCTGTACGTGCGCGCTGC  
 TACCGTGGGTGCTGCTGCATGGTGGTTTATTGCTGCTGACGGTGGTCCAAGAGTGCTCTTACCAGCGTGATCA  
 TTTCCCTACAGTGAAGAGGACAACCCGCACTTTGAAGGCGTGAAGATGTGCAATCTTTGAATCCCCATACCAGAT  
 GACAATGGCGCTCTCTGTTCTAGTAACATAAGAAATGTGTAACGCCCTCAACAGCTTGTCCGAAACCAAGCTCTT  
 GCTGAGGATGCCCCCTGGGGAACATCTGGCTCGTGGGCTCACCCTGCTGTCATCTCACTCACTTCTCTGAT  
 CCTCTATGTGCAACCCCTTCCGACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGCGGTGATGGTGTGAA  
 AATCTCCTTGGCCGTTATCTCATGATGAGACGCTCAAGTTTGTGGCCCGCAACTGGAACCTGGAACCTGTGAAGA  
 GTGTGTGACGCTGCCACCAATCTGCTGCTTCCGCATGCAACGATGGGATTTCTGGCGTTTGTGCTGTCT  
 CATAGTCCCTGGTGTCTGGGTCTATAGCACAGACACTAATTTAGCGATATGTTCTGGTCTTGAAGTACAGT  
 TTTCCATAAAGAGATGTTTAACTTAATCAATTAATTTTTTATTGTTTAAAGCAACTGCTCATTTTCTGCTGAAT  
 TTTCACTAGAACATCTGGCTGGTGTGAGGAGTTTCATACTCTAGATTTTTTGTGTTTTTCTGACTCCAGTGG  
 GGCAAGATTTTCTTTTTTATACACATAATTAAGTGCCATTGACATGTACAGAGAAGTAACTAATCTATTTATGCG  
 AAATATTTTTTTGTAGATGAAAAAGCATGACAGTGTCTGTTTAATACTCATCTGTTGATAAAAAAAATAGTTG

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**FIGURE 624B**

AGCCAGCAGACATTGTGAGCAAATTAATTGGCAGCAGATTTAGGAAATGAATGIGTGTGGTTTTTTTCTAAAA  
CTAAATAGCATGTATTGTGCTTTTGATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTTCATA  
AGCCAAATTTTCTGCACTGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA  
CTTTGGCCTCCGTTACCCCACCCCACCCACCTCTCCCCACCTTACCCCGCCCCGCTTGGCTTCTCTTTAGG  
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAAAACATTGT  
TCCAGATTCAATCGACTGGGTTTATGTCCTTCACATAGTTTTTAAGGTTAATTTTAAATGTCTAATGTATTT  
TATTGTAACAGACATTGTTTGGCAACATIGCCTATTTCAGTGGCAGTCATCTAGTTTTAAAAAATAAACAT  
TTTAAAAAG

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**FIGURE 625**

MENAHKTKVEEVIGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLELVIEQFEDLLVRILLLAACISFVL  
AWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQDRKSQVRIKAKDIVPGDI  
VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNI AAGKAMGVVVA  
TGVNTEIGKIRDEMVAEQERTPLQQLDEFGEQLSKVISLICIAVWIIINIGHFNDPVHGGSWIRGAIYYFKIAV  
ALAVAAIPEGLPAVITTCALGTRMAKKNNAIVRSLPSVETLGCTSVICSDKTGILTNTQMSVCRMFI LDRVEGD  
TCSLNEFTITGSTYAPIGE VHKDDKPVNCHQYDGLVELATICALCNDSDALDYNEAKGVYEKVGAEATETALTCLVE  
KMNVDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCT  
HIRVGSTKVPMTSGVKQKIMSVIREWGS GSDTLRCLALATHDNL RREEMHLED SANFIKYETNLT FVGCVGMLD  
PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFITGREFDELNP SAQRDAACL NARCF  
ARVEPSHKSKI VEF LQS FDEITAMTGDGVNDAPALKKAEIGIAMGSGTAVAKTASEMVLADDNFSTIVA AVEEGR  
AIYNNMKQFIRYL I SSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFENPPDL D IMNKPPRNPKE  
PLISGWLFFRYLAIGCYVGAATVGAAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTAL  
SVLVTIEMCNALNSLENQSLLRMPWENIWLVGSI CLMSLHFLILYVEPLIFQITPLNVTQWLMVLKISLP  
VILMDETLKFVARNYLEPGKECVQPA TKSCSF SACTDGI SWPFVLLIMPLVIVWVYSDT TNFSDMFWS

## FIGURE 626

GAGGAGGCCCGAGAGGAGTCGGTGGCAGCGCGCGCGCGGGACCGCAGCAGCAGCAGCAGCAGCAACC  
ACTAGCCTCCTGCCCGCGGGGTTTGCAGCAGGCCCCACGAGCCGCTACCCCCGCGTTTCTCAGCGCTGCCCGACC  
CCGCTGGCGCGCCTCCCGCCGAGTCCCGGCAGCGCCTCAGTTGTCTCCGACTCGCCCTCGGCCTTCGGCGACG  
GCAGCACAGCCCGACGCACCGCGAGCAGCAGCAGCACAGCCAGGCATAGCTTCGGCAGAGCCCGGCTTCGGCT  
CCTCGGCAGCTCCTCTGGCAGCTCCTCGCGCGACATTTGGAGGTTGGATGCTCTTGTCCAAAATCAACTCGC  
TTGCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCGGCAAGGAGAAGGAGCCCC  
TGGAGTCGCAGTACCAGGTGGCGCCGCTACTGGGAGCGCGCGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT  
CCGACAACCTTGGCGGTGGCCATCAACACGCTGGAGAAGGACCGGATTTCGACTGGGAGAGCTGCCTAATGGCA  
CTCGAGTGCCCATGGAAGTGGTCTGCTGAAGAAAGTGAGCTCGGGTTTCTCCGGCGTCATTAGGCTCCTGGACT  
GGTTTCAGAGGCCCGACAGTTTCGTCTGATCTCGAGAGGCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA  
CGGAAAGGGGAGCCCTGCAAGAGGAGCTGGCCCGCAGCTTCTTTCGCGAGGTGCTGGAGGCCGTGCGGCATGCC  
ACAACCTGCGGGTGTACACCGCGACATCAAGGACGAAAAACATCCTTATCGACCTCAATCGCGGCAGCTCAAGC  
TCATCGACTTCGGGTGGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC  
CTCCAGAGTGGATCCGCTACCATCGCTACCATGGCAGGTGCGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG  
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCCTCAGGCAGAGG  
TCTCTTCAGAATGTGAGCATCTCATTAGATGGTGCTTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA  
TCCAGAACCATCCATGGATGCAAGATGTTCTCCTGCCCCAGGAAACTGCTGAGATCCACCTCCACAGCCTGTGCC  
CGGGGCCCGCAAAATAGCAGCCTTTTCGGCAGGTCTCCCTCTCTTGTGATGCCCCGAGGGAGGGGAAGCTTC  
TGCTCCAGCTTCCCGAGTACCAGTGACACGCTTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTACA  
ACTCATTCCAGATCCGAGGCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGACTCTCCAGGGGTCTTAGGC  
CTCAACTCTCTCCCATAGATACTCTCTTCTCATAGGTGTCAGCAATTGCTGACTCTGAAATATCCCGGGGGT  
GGGGGGTGGGGGTGGGCAGAACCTGCCAATGGAATCTTCTTCATCATGAGTTCTGCTGAATCGCCGATGGG  
TCAGGTAGGGGGGAACAGGTTGGGATGGGATAGGACTAGCACATTTTAAGTCCTGTACCTCTTCCGACTCTT  
TCTGAGTGCCCTCTGTGGGAGCTCCGCGTGTGCTGGGAGAAACTTTGAACCTTGCCCTTTTACCTGCTGCTTCT  
CCAAAAATCTGCTGGGTTTGTTCCTATTTTTCTCTCTGTCTCCCTCACCCTCTCTCATATGAAAGGTG  
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCCTTTTTCTGCCTCCTTTAGTAAAACCTCCGAGTG  
AACTGGTCTTCCTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACAAAAAATGCACAAAC  
CAAGCAATCAACAGAAAAGCTGTAATGTGTGTACAGTTGGCATGTTAGTATACAAAAAGATTGTAGTGGATCTA  
ATTTTAAAGAAATTTGCCCTTAAAGTATTTTACCTGTTTTTGTCTGTTTTGAAGATGCGCATTCTAACCT  
GGAGGTCAATGTTATGTATTTATTTATTTATTTATTTGGTTCCTTCTCATTTCCAAGCTTCCATAGCTGCTGCC  
TAGTTTTCTTTCTCTTTCTCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG  
GGGTGACGGGACTCAGCGGGACAGTGTGACGCTCCCTGGCTTCTGTGGGGCCCTCACCCTACTTACCCAGGTG  
GGTCCCGCTCTGTGGGTGATGGGAGGGCCATTGCTGACTGTGTATATAGGATAAATTATGAAACACAGTTCTCG  
ATGTTGTGCCCTTCCAGATCTCTCTGGGGCTGTGTTTGAAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA  
TACTGTACAGGGGAATAAAAGAGATCTATTTTTTTTTTATCTTGCCTTGGAAATAAAACCTTTGCGCTT

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**FIGURE 627**

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGGGFGSVYSGIRVSDNLPVAIKHVEKDRIS  
DWGELPNGTRVPMEVVLLKKVSSGFGSVIRLLDWFERPDSFVLILERPEPVQDLDFDITERGALQEELARSFQ  
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDGTRVYSPPEWIRYHRYHGRSAV  
WSLGILLYDMVCGDIPFEHDEEIIIRGQVFFRQVSSECQHLIRWCLALRPSDRPTFEEIQNHFWMDVLLPQETA  
EIHLSLSLSPGPSK

## FIGURE 628

GTTTGTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGTCTCCAGTAGCCACCGCATCTGGAGA  
ACCAGCGGTTACCATGAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA  
TGACTCCATGAAGGAACCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCACCATCTACTC  
CATCATCTTCTTAACGTGCATTGTGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAG  
CATGACGGACAAGTACAGGCTGCACCTGTCTAGTGGCCGACCTCCTCTTTGTCTATCAGCTTCCTTCTGGCGAGT  
TGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCTATACACAGTCAACCTCTA  
CAGCAGTGTCTCATCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG  
GCCAAGGAAGCTGTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGA  
CTTCATCTTTGCCAACGTCTAGTGAAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT  
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCTATCCTGTCTGCTATTGCAT  
TATCATCTCCAAGCTGTCACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCACTCCTCATCCT  
GGCTTCTTCGCTGTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA  
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAAGTGGATTTCATCACCAGGGCCCTAGCTTTCTCCACTGTTG  
TCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAAACCTCTGCCCAGCAGCACTCACTCTGTGAG  
CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCTGTTTCCACTGAGTCTGAGTC  
TTCAGTTTTTCACTCCAGCTTAACACAGATGTAAAGACTTTTTTTTATACGATAAATAACTTTTTTTAAGTTAC  
ACATTTTTTCAGATATAAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTGGATTTTTGTCTTGTGTTTCT  
TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTCTAGGCAGGA  
CCTGTGGCCAAGTTCTTAGTTGTCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACGAACATCCAGAGCGT  
GTAGTGAATCAGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCTAGATAATCTCTCCATTCCCGTGGAACTG  
TTTTCTGTTCTTAAGACGTGATTTTGTCTGAGAAGATGGCACTTATAACCAAAGCCAAAGTGGTATAGAAATG  
CTGTTTTTTCAGTTTTTCAGGAGTGGGTGATTTTCAGACCTACAGTGTACAGTCTTGATTAAAGTTGTTAATAAA  
AGTACATGTTAACTTACTTAGTGTATG

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**FIGURE 629**

MEGISIYTSNDNYTEEMGSGDYDSMKEPCFREANANFNKIFLPTIYSIIIFLTGIVGNGLVILVMGYQKKLRSMTDK  
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAI VHATNSQRPRKL  
LAEKVVYVGWIPALLTIIPDFIFANVSEADRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIISK  
LSHSGHGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGC EFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGRGGHSSVSTESESSSFHSS

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**FIGURE 630**

GAGCTAGCTTTGCAATATGCGGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA  
GAAATGCTACGACCAACTTTTCGTTTCAGTGGGACTTGCTTCACGTCCCCTGCCTCAAGATTCTCCTCAGCAAAGG  
CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAATCCGGGGAGCCAAAGAG  
TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC  
TAACAACCTTCCCATTCAGCTCTTGGGGTGAAGCCTTATTCCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT  
CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCCTCGCTTGCTACGGCCTGGTCTGCTGGTGTCTCT  
CTCACCTCTGACGCCCTTGACTGTAGTCACCTGCTCCAGGCCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCT  
TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCCTGCTGTTTG  
GGGCTCCCTGGCCCGAATCTTCACTTCCATTCAGGAAACCGAGATCCCTTGATGGCTGGGACCTTTGTGGTCTC  
CTCTCTGTGAACGGCCTCATCGCCGCCAGCTGCTTCTACTGGAATGCAAGCCTCCCAAGCAGAAAAA  
GGCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTATTACCCAACCTCAGGGTTCTCCCATCTGAG  
CCAGCCTGCTGGTGTGACTTACTCATCTCCATTCTCTGCACTTGCAGACTTTCAGGCCAGGGTTTCTTTTA  
GTGGAAACAAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT  
TTGACATTTGAGTGCTTTCTGAAGCCCTGTACATGTACTATTAAATTCAGTCATTACGCCAAGCCTCCTCCTTAG  
CAGCAATTTCCAGCTGTTTAACTATCTCTGGGCAAATGTTTTACCCTGTCTCCAGCCTCCCTGCTTCCCTTCT  
GGCCCTGGAAGACTGAGTCTGGACGGCAGAGTGAGGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCCG  
CTGGGACTGTCTCCCGGACCCCACTGCTGGGGTGGGGGAAGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG  
TGGGGTGAGGAGGTTCTGCTCTGGCAGGTCTAGGCGGAAGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA  
GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAA



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**FIGURE 631**

MAAEADGPKRLLVPILLPEKCYDQLFVQWDLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAESAEGLS  
LQSVMLELVALTGMTVYSITNNFFSSWGEALFLMLQTITITICFLVMHYRGQTVKGVAFACYGLVLLVLLSPLTP  
LTVVTLLQASNPVAVVGRLLQAATNYHNGYTGQLSAITVFLFGGSLARIFTSIQETGDPMLAGTFVVSSLCNG  
LIAAQLLFYWNAKPPHKQKKAQ

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**FIGURE 632**

CGGGAGGTCAGAAAACGGGCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC  
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCTGCACCAATGACTCAACAGCCACTTCGAG  
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTCGCGCATCTACA  
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC  
ACCGCTCCAACCTTCGCGCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG  
ACGATGCCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGTCTGGAGTTACCTTCACCAAGCCAGTGCTTTCTG  
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCAGCATCTATGTGTACTCCTTCCCCGACAATCCCC  
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC  
TGCTAGTGTTCGCCGGACACAAGTGTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT  
CTGCTCCATTACGATCAATGCACATCAGAGTGACATAGCCTGTGTCTCTAAACCAGCCAGGCAGCTGTAGTGG  
CCTCAGCCTCCCAGAAGGATACCTTATTCGCCCTTTTGACACACAATCCAAGGAGAACTGGTGGAGCTGCGCC  
GAGGCACTGACCCTGCCACCTCTACTGCAATTAACCTCAGCCACGACTCCTCCTTCTGCGCTTCCAGTGATA  
AGGGTACTGTCCATATCTTTGCTCTCAAGGATACCCGCCTCAACCCGCGCTCCGCGCTGGCTCGCGTGGGCAAGG  
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCCTGCTGAGTCAGCTT  
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAAGCTCAACTCTGTCAATGGCATCTGCGTAGATGGGACCTTCC  
ACAAATATGCTTCACTCCTGATGAAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG  
ATGACTTTTAAAGGACCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAAGTGCAGAGCTGAGCCTTGGCAGTGG  
GGCGTGCTTGGAAGCCACCAGCAGCAAGCATTAAATGGGGCTGGTGCCACTTTCCACTCAGCAGAGCTATGTCT  
AAATAAAGAGCTCACTTCCCCCAGCACTTCTTGATGACTGTGTCGCCAAGGGCCAGGCCAGAGACCCAGGAAG  
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG  
GATTTTTTAAAGCTTCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC

**FIGURE 633**

MTQQPLRGVTS LRFNQDQSCFCCAMETGVRIYNVEPLMEKGHL DHEQVGS MGLVEMLHRSNLLALVGGGSSPKFS  
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIIVLVKNRIYVYSFPDNPRKLFEPDTRDNPKGLCDL  
CPSLEKQLLVFPGHKCGSLQLVLDLASTKPGTSSAPFTINAHQSDIACVSLNQPGTVVASASQKGT LIRLFD TQSK  
EKLVELRRGTD PATLYCINFSHDSSFLCASSDKGT VHI FALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF  
TVPAESACICAFGRNISKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

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**FIGURE 634**

ACGCCCTATACAACCTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCTCGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA  
CCTTAAACCACCTCGAGCAGATAATCTCCGCCCTTGACCGGTGCCACAAAGAAGGGTTGGAACCAATGTGGACTTT  
TCTGGGCATTGCCACTTTTCACTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAAACAGGGAGGTCTCT  
GTTGTGCGTGCTGGTGTCTCTCGCTGGGCCCTGGTGCTCTCCTACCGCTGTGCGCCACCAGAAACGGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCCAAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTCTTT  
CTGGGCCAAATCCCCCCTGAATCAGAAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAGAGCCTGACAGAATAGTTGGAGAATTCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGGAGATACAGTGGAAAGTCTTGATGCCCAGGTTGTAATGGTTACATGATTATGATCAGGAAAGCAAATC  
AGAGGTTCAAGATTCTTACCCTCTGTGCAGAAAAAATCAAGTGCAGAGTGAAGAGCTTTCCATCACGGAAGATT  
CATCATGAGTCTCCGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC  
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTATTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGGATTTCATCCAGTAAACTCGAGTACTTGTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCCTTAGAAGC  
CACTGACAATTTCTCATCTGAGGTCATGTAGCAAGCTTCTTCTCCTTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTCTGC  
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTCTTTATTTCAAACCTTGGTGGCGAATGTTGTGCGGG  
TCCGTGTTGGGTGCTTTCGTATTGCTCCTAACCCCTAGCTTTAATTGGACACTTCTTGTGCTGTTGCAATCTA  
TGCCGTGATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGTGTTATT  
GTACAAAGCGTGTTCTGTAATATTTCCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAGCTTAAAGGGG  
AACCATTGTGAATGAATATTGGAACCTTACCAAGTCCTAAGAGACTTTTGAAGAGGATATATATAGCATAGTA  
CCATACCACCTTATAAGTGGAACTCTTGGACCAAGATTGGATTAAATTTGTTTTGAAGTTTTTGTATATAAA  
TATGTAATACATGCTTTAATTTGCAATTTAAATGAAGGGGTTAAATAAGTTAGACATTTGAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAATCAGTTTTCTTTTGAATTTAGTATTGAGATGAGTTGTTG  
GGACATGCAATAAAATGAAGAAATGAC

**FIGURE 635**

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGLLGRQSRSGSQFALFSDILSGLPFI  
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACSTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQS GRAFH  
HGRFIMSLRKAAMAEPNAKFIEGVVLQLLEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVFGFLMKNAPQFKANHAELILANPSVLIYRISSSETRVLVDIRGEMPRNLREYMEKIYPQIPDHLKEP  
FLEATDNSHLRSMLASFLPPSSVKKRGVLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGEVCVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEMKYMVH

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FIGURE 636

GGCAGCAGGGCGCGCGGAGGCTCCCGTGCGCTCGGACGCTCCTCCTAGCTAGCGGCGCGCGCCGCCGCCCT  
GCGCCTCCAGCTCCTTCGCCCGCGGGGCCCGCGCGCCTTCGCGCAGCTCACCCTGGGAAGCGCTCACCTGGGA  
CGCGCTCACCCTGGGACGCGCTACTGCCTCCGGGCGCCTGGGCTTCAGGATGAAGGACCGCTCTGGAGCAGCTGAA  
GGCCAAGCAGCTGACACAGGATGATGATACTGATCGCGTTGAGATTGCTATCGCAACACGCGCTTTTATGGACGA  
GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAAACT  
CTACAGTATCATCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCAGCACTGAGAT  
TAAGAAAAGGGCCCAACACGTCGCGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC  
ATCGGCAGACCTTCGGATTGGAAATCCAGCACTCTGTCTTTCTCGGAAGTTTGTGGAGGTGATGACCAATA  
CAATTGAAGCTCAAGTGGACTTCCGAGAACCGAGCAAGGGCGAATCCAGCGGAGCTCGAAATTACTGGCAAAA  
GACACCGATGAGGAGCTGGAGGAGTGTTGGAGAGTGGAACCCGCGCATCTCACTCTGGGATCATTGACT  
ACAGATTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA  
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGTTGAGATGTTAGATAACATAGAGTT  
GAATGTCATGCACACAGTGGACCCGTTGGAGAAGGCACGAGATGAACAGAAAAAGCTGTGAAATACCAAGTCA  
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTAGCATTTGATTATTGGACT  
TTCCGTTGGGCTGAATTAAGAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT  
GGCACCCCTTGCTCTCAGATGAGAATGGAGTCTGAATGGCCTTCCTGAGAGCGAGTGGACCCGTTCTTTGTTT  
CCTTGCAACACCCCTTGGACCTGACTCAGCTAACATCTAGCCCTGGGGGAATGTGATCTACCTGATGGCACCT  
GAGTTCTCCCCAGCCCTCCTCTGCCCCACCACTCTCAAGTACCTTTTCTCCTGGACTGTGTGGACCCCA  
GCTTTCTTCCTCCCTGTTGTGTGTCAGATTATGCCITGCACTTGGGAAAGCTCTTGTGAGACTCTCCAAGGTGC  
TGATTTTTCTACCTCATGGAGTATCTCCAGAACTGCAATGTATTTTTTAGGGGAGTATCTTAAACAAGC  
AGAATGATTCTCTAAGTTTGGCAACAAGAGGCTTGATCTGAGTCTTCACTGGCAGGATGCCAATCTGTT  
TGTGTCCGTATGCTCTGAAACATGAGGGACTGGCAGATGTCAATTTGGTCTAAGAGCTGACTTGTGTTGAAAT  
TCAGCCTTAAATTAAGCTCTTAGTTGTTGAGCTTGGGGGGCAACTTTGATTTTTCTGTGTTGTAGTCTCTCAT  
ATTTACTCAAGGAGGGACCAAGATGATACAGTCACTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT  
GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATGTTAGAAAGTGATGCTTTGTGAGACTATTGTCTGGGG  
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGCAAGGTGCTAGAATCTCAAGCTCTGGAATAATTTCATGA  
CACTGGTGATTCACTCATGTGTTCCAGATGTAATCTAATTGTGTATGAAATGATGTACACATAAGTGTGTG  
TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAAGCCAACCTTTGAGCTAGGATAAA  
AATTGGGTAAGAGCATTTGCTTACCTGCAAAATGAATCACTGTGGAATGTGATCTTCCATATCATCAAGAAAC  
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAAGTTTT  
CTGCTTAGCAGCAGAGAAGGTATAATTTTGTACACCCCTTCCCACCTGGTGCTATGCTAGGCTTGTCTGAGAA  
CATCCCTCAGTAACCTTGATATTACATGACCTACAGGATGCCATCTCAGGGCTGAGTCAGGTTGGGAAACACC  
AGAGGCTACACAGTAGCTCTTCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATCTTATC  
ATGGAACAGCAGCAGCAGCGCTAGGAAATCTCAAGTGTAGTGTCTGTGCTAACCCAGTGGTAATCCCTTAG  
ATCCCTGTGCTGCTCTGGCAGTCTCTTGATTTGGGTACCATGTATATTTCCGCTTTGACTTTAACGCTTTT  
TAGGATAGGTAAGACCCCTTAATTCAGGCAGTGTCCATTAGCTTCCTTTGCAAAAGGCTACTTATGGCCGGTCA  
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA  
GCAACAAGACAAAAATACATAAGGCCCTTGCTCTCTGCAATTGAGGCTGGGGCTTACAGTTTGGAAATAC  
AACATGTGAAGGTTTTTGTGTGTGTGATTTTTAGATGTAACTGATTATTTTATGCTAATTTAAAAATA  
AAAAAGACTTTGATTGATTGTGAAAAA

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**FIGURE 637**

MKDRLEQLKAKQLTQDDDDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVEEAKKLYSIILSAPIPEPKTKD  
DLEQLTTEIKKRANNVRNKLKSMKHHIEDEVRSADLRIRKSQHSVLSRKFEVVMTKYNEAQVDFRERSKGRIQ  
RQLEITGKKTDEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ  
GEMLDNIELNMHTVDHVEKARDETKKAVKYQSQARKKLIIIVLVVVLLGILALIIGLSVGLN

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FIGURE 638A

AATAAGAAAAAGCTTTTCATTTTGAAATCTAGAATACCTCCACTTTTGAAAACTTTTGATTTCCAAATTTTTCT  
TGCTATGCACTAGTTAAAGATAAGGTATTATATAATGAGCAATAGCAGAGATCTCAAAGCTGTTTGAGTTGCATA  
TGGGCCATACCTCTTTTCTGTAACTGTCATACCATGCATTAACTGTTGCGCTTTTCCAGATCTGCTCACTT  
TAGCACTCTGGCAATTAAACAGAACCCCTTTCTGGCAGAAGCTTATTCGAAATTTGGGGAATGTGTACAAGGAAG  
AGGGCAGTTGCAAGGAGGCAATTGAGCATTATCGACATGCATTGCGTCTCAAAGCTGATTTCATCGATGGTTATAT  
TAACGCTGCAAGCCGCTGTTGATAGCAGCGGTGACATGGAAGGGGCAGTACAAGCTTACGCTCTGCTGCTCTCAGTA  
CAATCTGATTTGTACTGTGTGTCGAGTGACCTGGGGAACTGCTCAAAGCCCTGGGTGCGCTTGGGAAGAGCCAA  
GAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCTCGCTGAAGGAGCTCGAGGCCCTGGATCT  
AGGGCAGACACACAACCTCCTCCTCCTCTTCCAGCAAGGAAGCACCAGAAAAGTCACATGATGAGAAATATGGTA  
ACGGGTTTGTAACTGCCACGCAAAACAATTTGGCTCCATGCCTGAATCTTCTGCTTTGGGCTTCAGAAACAGC  
TTAAATAAATTTTATTACAAGCAAGTTATGTAAGAGAATGTTTATACATATAGCCACAATTCGTCAAAGATAA  
GTAAAGTTAATTGATATTAATAAATTTATTAGAGATAATTTACTTAGTAAAGCTTCTAACTCTTCTTGTTGTC  
TTTTTTTTCTTTTTCTTTCTTTGTTTGGATTGCAAGCATCTGCTCTTCTGATGATGCGCTGTGACCCCTGCAAT  
GCGCAAAGGCTGCGCAGCGTTAATGCGCATGCGTGCGAATGAACCCCTGTGAACGGTTGACTAGATGAGTAATC  
TGATTGACTGGCICCTCAGTCCATTCTGTAGCCTTTTGGATAAAATTTGGGTTTAAACATCTCGATGCCAA  
CTAATCTATTAAACAAATATTTCCATGGGCTGTCTAGTAGATTAATGGATCTGGTTGGCCGTTTGTCTGCGTC  
TAGGGGTGTTCTATGTAGCGCAGCAGTTGCGAGCGATTGCGCAGTGCATGCTGTTAGGTTGCGCAAGCGATGTT  
TGGCTCGCATTACAGGGAATCTCAACTAGGTGCAATCCTGTGATGTAGGTTTCAGCTTCAGTCCCTCTGGGA  
GACGGGGCATTGTGAGAATGTAACCTAAAGCCCTGGCTTTATGATATCTCTACTTGGCAGAAAGACATTTTTCTCCT  
CAGTAGCATAGTTTTGATGTTAGTGAGGAACATTTGTGAAGAGCAGCATTTCCCAAAATGTGTTTCATAGTATTC  
TAATAAAATGCCAATGAAAGAGAGTTCCATGGTCAACTAAGTTCAGGGAACCCCTGTACACATATTAAGGCTT  
AGGGAAGTCCAGTAAGAAACCTATTTCCGAATTTATTTGATCATGAACCTCCTTTTTTTTCAGCCATACCTCT  
TAACACCTCATAGAACACATTTGGGAAACAGTGGGGTAGGAAACCTCGGCCCTCAAGTTGCGCCCTCTAGGTAG  
CACTTGAACACATGACAAAGGCCCGTAGTTGTTTGGTAAAGAGAACTCCAGATGACCGATTTATAGCAACTGAG  
TCCCAGTTAAGTCCCAGTGAAGGGTTGGTCTTTGGTTGGCAGAACTGAACATGGTGGTTTGCACTTGGGTTCTG  
GTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTGGCGCAAGCGAGCCTATGCTGCAAGGTC  
CTTTTGGCTGGTCAGAGAAGGAATAATGATATACCTCTTCCCCCTCCCAAACTTTTTTTTTCTCCTTT  
ACAAATTTTCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTCTTTCACTAACCCCTCTCAAGGCATGTTATTT  
GAAAGCAATTGAGACGCAACCGAAGTTGCAAGTACTTGGAGTAATCTTGGCTGTGTTTCTCAATGCACAAAGGGGA  
AATTTGGCTTGAATTCATCACTTTGAAAGGCTGTACCCCTTGACCCAAACTTTCTGGATGCTTATATCAATTT  
AGGAAATGCTCTGAAAGAGGCAAGCATTTTGTACAGAGCTGTGGCAGCTTATCTTCTGCGCCCTAAAGTTTGAAGTCC  
AAATCACGCACTGGTGACGCGCAACCTGGCTTGTGTATACTATGACGAGGCCGTGATAGATCTGGCAATAGACAC  
CTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACTGCAACCTAGCCAAATGCTCTCAAAGAGAA  
GGGCAAGTGTGCTGAAGCAGAAATGTTTATAATACAGCTCTCCGCTGTGTTCCACCCATGCAAGCTCTCTGAA  
TAACCTAGCCAATATCAAAACAGAGAGGGAACATTTGAAGAGGCACTTGCTGTTGATCTGTAAGCATTAGAAGT  
CTTCCAGAGTTTGTGCTGCCATTCAAATTTAGCAAGTGTACTGCAAGCAGCAGGGAACCTCGAGGAAGCTCT  
GATGCATTATAAGGAGGCTATTGCAATCAGTCTACCTTTGCTGATGCTACTCTAATAATGGGAAACACTTAA  
GAGATGCAAGATGCTTCAAGGAGGCTTGCAGTGTATACGCGTGCCATCCAAATTAATCCGATTTGAGATG  
ACATAGCAATCTGGCTTCCATTCATAAGGATTCAAGGAATATCCAGAAGCCATAGCTTCTTACCCGACGGCTCT  
GAAACTTAAGCCTGATTTTCTGATGCTTATTGTAACCTGGCTCATTGCTGCAGATTGCTGATTGGACAGA  
CTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACGATTAGCAAGAAATAGGTTGCCTTCTGTGCA  
TCCATCATATAGTATGCTATATCTCTTCTCATGGCTTCAAGGAAGGCTATTGCTGAGAGGCAAGCCGCACTGTG  
CTTAGATAAGATTAAATGTTCTTCTATAACCACCATTAAGCACTTGAAGCACTGAAGCTCAGTATGCTGCGGT  
CGGTGTAGGATATGTGAGTTCCGATTTTGGGAATCATCTACTTCTCACCTTATGCAAGTCTATTCCAGGCATGCA  
CAATCTGTGAAATTTGAGGTTGTTCTGTATGCGCTGAGCCAGACGATGGCACAACCTCCGATGGAAGGTTGAT  
GGCAGAGCAATCAATTTCTCATGATCTTCTCAGATTCCATGCAATGGAAGCAGCTGATCGGATCCATCAGCA  
TGAATTCATATCTTGTAAATATGAATGGCTATACTAAGGGCGCTCGAAATGAGCTTTTGTCTCTCAGGCCAGC  
TCTTATTCAAGCAATGTGGCTGGGATACCTTGGGACGAGTGGTGCCTTTTCATGATTATATATCACTGATCA



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FIGURE 638B

GGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGGCTTATATGCCCCACACTTTTTTATTGG  
TGATCATGTCTAATATGTTCCCTCACCTGAAGAAAAAGCAGTCATCGATTTTAAAGTCCAATGGGCACATTTATGA  
CAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTCTCTGATAGTCTACAGATGTGAAAAATTGTCAAGAT  
GAAGTGTCTCGTAGGGAGAGACAATGCAGATAGCAGTAACACAGCTCTTAATATGCCTGTTATTCCTATGAATAC  
TATTGCAGAAGCAGTTATTGAATGATTAAACCGAGGACAGATTCAAATAACAATTAATGGATTAGTATTAGCAA  
TGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGAGGTTCCCCGTACCATTTATTGTAACCAAC  
CCGTTCTCAGTACGGGTTACCAAGAGATGCCATCGTATACTGTAACTTAACTCAGTTGTATAAAAAATTGACCCCTTC  
TACTTTGCAGATGTGGGCAAACTTCTGAAGCGTGTCCCAATAGTGACTCTGGCTGTTCGGTTTTCCAGCAGT  
AGGAGAACCTTAATTCAACAGTATGCACAAAAACATGGGCCGTGCCCCAGAACCGTATCATTTTTTACACCTGTTGC  
TCCTAAAGAGGAACAGCTCAGGAGAGGCCAGCTGGCTGATGTCTGCTGGACACTCCACTCTGAATGGGCACAC  
CACAGGATGGATGTCCTCTGGGCAGGACCCCCATGGTGACTATGCCAGGAGAGACTCTTGCTTCGAGTTGC  
AGCATCCAGCTCACCTTGCTTAGGTTGCTTGAGCTTATTGCTAAAAACAGACAAGAATATGAAGACATAGCTGT  
GAAGCTGGGAACCTGATCTAGAATACCTGAAGAAAGTCTCGTGGCAAGCTCTGGAAGCAAGAATATCTAGCCCTCT  
GTTCAACACCAAAACAATACACAATGGAACTAGAGCGGCTCTATCTACAGATGTGGGAGCATTATGCAGCTGGCAA  
CAAACTCGACCACATGATTAGCCCTGTTGAAGTCACTGAGTCAGCACTAAATAAAGACTGCACAGGAGAATTACCC  
CTATACCTGAGCCTCAACCTTCTGGGGGAAAGGGAACCTAGATAACATACTTCTTACTTGCTGTACAGTACCTTG  
TGCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTTGCTTCCTGCAATGGTAGGAGAGACACA  
AAAGATGGGAACCTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGGCGGCACAGATGGTGCAATAGCTCTGGAA  
GGTCTGATCTCCCTTGGTCTCCATGGGATGGTTAGTGTGGAGGGGAGATAGATTGTCCGGCCGCTTTGTGAT  
TCCATGGATTGATTCAGTCTCTGGATTTTTTTTTCTTTATATTTTGGGTACTGGAGCTTTTAAAAATGTTTGGT  
TTCAGGTATTTTATTCACTGAGAGGTATATGATTCTCTTGAGATAAGGTTTAAAGCTAAAAATGACTCCCTG  
TTTTAGTTTCTGAACCTCTGACAGATTGACAGGGACTTTGCTGGTGTAGTCTTTTTATAGTTTTATAAACCACTT  
GAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATCAGTGCTTTGTGATTAGATGATGACT  
CAAGATTTTTTCTGGTCCATTTCCCATTTCTTTTTCTCCCTGACCCCATACCCCTCACCCTTAAAAATTCCTCTG  
TAACCTCAACTAACAAAAATCAAGCCTGATTCAAACATCCTAGGGTGTTTTAAACACACCATCTGGTGCCAAATGA  
AGATTTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTTGGGTACTGTCATTGATAATAATATAGTTTTTTTT  
TTTTTCTAATTTTGACCTGTTTACCAGTGTTTTACCCTTGACTGCCCTTCTATGCTGCTTCCAAAAGTGATA  
GTGTGTGAAGATTTTACCTTCTCTTCAAAGTTTTTTTTTTTTTTTTTTAAAGTGAGTCTCTGTTCTTCTTATTT  
CTTTCAGCAGAAATGAATCCGAGTAAAGTATAAGTATTCAAGTATTGATCAGTAAGTCACAGTATTCTCCAGT  
GCATTAAATAACCTTCATCAAGAAATAGGTTATAGGTAATACTCTGAAGGATCATCTATGTATTCAAGTAATTA  
TTTTTTAGATAATAACTGCTCTTCTGGACTTGGTCTTGAAGTCTGTACAGATTGACGCCCTCAGTAGTAGCGAACTGC  
ACTGCTGTTTTGGTTTGGAGTACAAATAGACTTATAGTCTCCTGGAACCTTGAGTTATTAATAATCATAGGAATAA  
AATTATGGGATCTCAACAAGGGTCGAGGGTTTGAAGCTTAAACAAGCCACATATGAATATATGTTTTGTCTCG  
CTATACTGCACTTACGCTATCCAGTTGCAGGTAATTTTTGTCTGCTAGTAGTGTGTTCTAGATTATGCTTTCCAA  
AGCGCTGAGGCTGTGCACCTATTCTGTAGTTGCAGCTGATGCCTGAATGATGCTAGTACAAATATTGATTATTA  
ATAAGAACTTGAATTTCTGGAAGATTCTTACTGTAAACCAAATTTTGAGCAAGGAGTCTCAAAGGTAATTCTGAA  
CCAGAATTACATGTTAATGAACAGTGTACCTTTTAAACAGTGTAAATCACGGAATATCCGTGAAGGGATTCTTAA  
TTTTATTTTACCGGTTGATTGAATATCAGTTAAAGTTTGGCAGCATGGTTGCGAGATAAACTGATGTTTGAAT  
TCGCTGAAATACTTAATGTGGAATAGGATAATATACTTCCAATGCCCTCAAGGCTGTGACCTTACAGCCATTTTA  
CATAGCACATCTCTCTATAGGATGAACTTTTTCTGGCACGAAAAGTAGCCGCTCTGGTTGAAGCTTTGCTG  
TTATTTGAACAGCGTTTTATTTCAGGTAATATGCTTTGGAAGACTTAATCTGATTAGAGATATAGATATTACT  
GGAAACTAATTGTTTTTTCTATTGTACTCTGCTTTATCAAAGAAGTAAACATTTAAATCGTACTACAGAAAT  
TAAGATGTTGCTTGCATCTTAATAAATGAATGATTTCCCTTTAAAAAAA

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**FIGURE 639**

MISPSPPPPNLFFFPLQIFFFPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAVSNLGCVFNAQGEIWLAIHHF  
EKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYVEQGLIDLAIIDTYRRRAIELQ  
PHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIEEAVRLYRKALEVFPFEEAAA  
SNLASVLQQQGLQEALMHYKEAIRISPTFADAYSNMGNLTKEMQDVOGALQCYTRAIQINPAFADAHSNLASIH  
KDSGNIPEAIASYRTALKLKPDPFDAYCNLAHCLQIVCDWTDYDERMKKLVSVADQLEKNRPLSVHPHHSMLYP  
LSHGFRKAIAERHGNLCLDKINVLHKPPYEHKDLKLSDGRLRVGYVSSDFGNHPTSHLMQSIIPGMHNPDKFEV  
CYALSPDDGTNFRVKVMAEANHFIQLSQIFCNGKAADRIHQDGIHILVNMNGYTKGARNELFALRPAPIQAMWLG  
YPGTSGALFMDYIITDQETSPAEEVQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSNNGHIYDNRIVLNGI  
DLKAFLDSLDPVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQIN  
NKAATGEEVPTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVNSVLWLLRFPVAVGEPNIQQY  
AQNMGLPQNRITFSPVAPKEEHVRRGQLADVCLDTPLCNGHTTGMDVLWAGTPTMVTMPGETLASRVAASQLTCLG  
CLELIAKNRQEYEDIAVCLKGTDLEYLKKVRGKVWKQRISPLFNTKQYTMELERLYLQMWHEYAAGNKPDHMIKP  
VEVTESA

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**FIGURE 640**

ATGCGTGAGTGCATCTCCATCCAGCTTGCCAGGCTGGTGTCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC  
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC  
ACCTTCTTCAGTGAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT  
GATGAAGTTCGCACTGGCACTTACCGCCAGCTCTCCACCCTGAGCAACTCATCACGGCAAGGAAGATGCTGCC  
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTTGGACCGAATTCGCAAGCTG  
GCTGACCAGTGCAACGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAC TGTTCTGGGTTCAAC  
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTACCCGGCGCCC  
CAGGTTTTCCACAGCTGTAGTTGAGCCCTACAACCTCATCTCACCACCCACACCACCTGGAGCACTCTGATTGT  
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAAACCTCGATATCGAGCGCCCAACCTACACT  
AACCTTAACCGCCTTATTAGCCAGATTGTGCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT  
GACCTGACAGAATTCAGACCAACCTGGTGCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCTC  
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCATGCTTGCCTTTGAGCCAGCCAAC  
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC  
AAAGATGTCAATGCTGCCATTGCCACCATCAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC  
TTCAAGGTTGGCATTAAATTACCAGCTCCCACTGTGGTGCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG  
TGCA TGCTGAGCAATACCACAGCTGTTGCCGAGGCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC  
AAGCGTGCCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCTGAGGACATG  
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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**FIGURE 641**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSHFGGTTGSGFT  
SLLMERLSVDYGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFEQTNLVPYPRIHFLATYAPVISAEKAYHEQLTVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAVAEAWARLDHKFDLMYAKRAFWHWYVGEEMEEGFSEAREDMAALEKDYEYEVGADSADGEDEGEY

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FIGURE 642

AGTGTGGTTTTAGTTTTTCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAA  
CCTGGGGCGTTTTGCAAAACCCGGATCCGGGGCGTGTGGCCCATGCCCGCGGGCGTTTGGGGCTACTGCCAGC  
CAGCTTTCTTGAGAGCTCCGGGCTGGTGCCTTGGTGGCCCTTATCTCTGTCCCCCTTTGTCCCTTTTATCTCAGG  
CTGCTCCAGGAGGCGGGGGGGCCCATCCGCCTATCGCTCCCTCGGCTCGCACTCCCATGCCAATGCCCGCGAGGT  
CGCGAGCTGCTGTTCTTTGCAAGGCGCGGAGAACAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG  
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGGCGCCGCGCGGCTCCCTTGCGCGGCAGCCCGTGC  
GGCCCTCAAGGGGAAGCCCGAGGCTGCGCCCGGGTGGCGGGTGGCGGGGCTCTGTTGCTGGCGGCCCGC  
GGCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCCTCAGCAGGAGATGTGCTGAGCGGTTCGGCGCGAATCTG  
AGCCTGTGCGGCGCGCAGCTCCAGCACTTGTGAGGACAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT  
GGCAGCTGCACCTCAACCACTGTTAACTGCTGAAGAGATCTTTCCCTCATGGCTTTCAAATGCTACCCAA  
ATAACAGCTCCAAATTTCTGTGATCTGTCCAGCAGTCTACAGCAATTGAACCTTACCCTATGTGAGGATCG  
CCCAAGCACAAAACAGACCAAGTCATTAGAAGTTTGGGGATATGGATTCTGTGACTGACGATTATTAATCTG  
GCATCTCTCCTCGGATTGATTTGACTCCAAGTATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG  
GGGCTGGCTATTGGGACTCTTTTTCAAATGCAATTTTCCAACCTATTCAGAGGCAATTTGGATTGTATCCCAAA  
GTCGACAGTTATGTTGAGAAGCGAGTGTGCTGTTGGTGGATTTTACCTTTTTCTTTTTTGAAGAATGCTA  
AAGATGTTATTAAGACATATGGTCAGAATGGTCATACCCACTTTGGAATGATAACTTTGGTCCTCAAGAAAA  
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAATCCTGCTGCACAGAAGCTAAT  
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAGAAAGAGCCAAAGTTCATGTACCTGT  
TTGAAGGGGGCCAACTGTCAGAAATAGGACGAGTTGCTGGATGATAACGCTCTGCGATGCCCTCCCAATTTT  
ATCGATGGCTGGCAGTATGGGGCTTCTGCACCTTGTCTCTCTCAGGACCTAGTACTTCCATAGCAATCCTA  
TGTGAGGAGTTTCCCCACAGTTAGGAGACTTTGTGATCCTACTCAATGAGGAGATAGCACTCGACAGCACTTG  
CTATTCAACTTCTTTTGCATGTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAAATTTGCT  
CCAAATATTATTTGCACTTGTCTGGAGGCAATGTCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT  
GATATGCTGAGAGAAAAGGTAACCTGGGAAGAAAAACCGATTTACCTTCTCATGATTCAAGATGCTGGAATGTTA  
ACTGGATTCACAGCCATTCTACTCATTACCTTGTATGACGAGAGAAATCGAATTTGGAGTAAATAGAAAATGGAAGAT  
GGTGTGTTAATAAAGGCATTTAATAGATAAAAAACATCTCCAAAAGGATTTTGAAGCTGATCCTTATTTAGTTAA  
AAAGATAATTTTGCCTTCAACTGTAGGTCAGAAAACATAATTTATGGCATCAGTCTGTGAAATAGTCCATTATTT  
GTTGTTAAAAATGCTTCAAAGGTTTTCAGTGTGAGTCTGAGATGCCCTGGTATATAGGAGCCCTTTGGGAAATAC  
TATTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTTCTATAATCATGTAGCACT  
CAGACTCAGGGGAAAATACAAGTTATATCTGAAAGCCTTTAAAACCTATGTTAGGATCAAGATTCAAATGGT  
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAAGTAAAA  
TGATGCAACCAATAATAAATTTCCAAGTCTTAAAGGAGCCAAAGAAAAAAGATTTCTGCACAGCTTTTTG  
TTCGTGTTTGTATTTCAATTAGGAACCTGCAGTATTATTTGAAACCATTCTAAAATAATAGGAGTTAGGAAAT  
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGCTTATCGCTAAGTXXAACTTCACAGGATTTCCAC  
GAAAGCTGGATAGCTTTTTTGTGCACTTATGTTGTGTCACCCCTCAAAATGGCAGCAAGATGTAAGC  
TGTTAACACCTCGGTTTCAGTGCACCATGTGTTGCTTTGTGAAGGTGAAGAAATATGTTGGTTTAGAGAAAGAAA  
TTGGATGTAATTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAAATTTTTAATAAATGCAA  
AACACAGCTGGAAGCTGCTGTACATCAAGGACAGATTAACCTGGAAGCAATATGTTCCCTATGTTGATGAGAGCC  
ATTGAGAAAAGACTTCCCTTGTGTTTACGCTATACCTTTTCCATATGTTATACCTTTGAAAAAATTAGCACACCAT  
GGTATTTTTCTACCTTTTATAAAGACAGAGCGCTTTTACTCATTTAGAAGATAGAGAAAATTTGCTTAAAT  
GACATCCTAGATTACACTCCCAAGCTCACTTAAGGTGATTTGATGGTGGGAAAAATGATTGACAAAGCCCAACA  
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGACAGATTTGGTGAATAT  
TTAATATATATTTAGTATGATTTTCACTTTATGACTGACAAATAAAAAATATGTTTGGCCAAATAGTAACAC  
CCTTTTGAACCATGAAAAA

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**FIGURE 643**

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLEQMGAAASRVGVPEPGQLHFNQCL  
TAEETISLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT  
PLIKKSYFPKILTFVVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ  
NGHTHFGDNDFGPOEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI  
GTIAWMITLCDALHNFIDGLAIGASCTLSSLQGLSTSIAILCEEFPHELGDVFVILLNAGMSTRQALLFNFLSACS  
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENMDMLREKVTGRKTDFTFFMIQNAGMLTGF TAILLI  
TLYAGEIELE

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FIGURE 644

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATTCTGCCTACTACGTGCT  
GCCCTGCGCCCGCAGCCATGTCGCCGACCCCTGGCCGCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA  
AGACACGCTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTTGGG  
GCAGTAAACACAGCAAGAGAGAATAGAAACTTCTCAGAAGATGTGCTGGGGTGGAGAGATCGTTCCGACCTGCTGC  
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCTGAAGACAGAGTTCACTGAGGAGAACCTGGAGTTCT  
GGCTGGCCTGTGAGGAGTTCAAGAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGGCACACCAGATCTTTGAGG  
AGTTCATTTGCACTGAGGCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC  
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC  
GCTTCCTGAAGTCGCTGCTTACCGGAGCTGGCTGCCCAAGCCTCAGCCGCTCTGCCACTCTGTCCAGCTGCA  
GCCTGGACGAGCCCTCACACCTCTGCTCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC  
ATCCCGAGGTTGGCTGCCCTGTGTGGGAGGCAGGTTCTGCAAGCAAGTGCAAGAGGACAAAAA  
AAAAAAAAAATGCGCTCCAGCAGCCTGTTGGGAAGCAGCAGTCTCTCTTCAGATACTGTGGGACTCATGTG  
GAGAGGAGCCGCCACTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA  
AAAGGTGGTATGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTCTAGTGTGGTTAGGAAACA  
TGTGGATAAAGGGAACCATGAAATGAGAGGAGAAAGACATCCAGATCAGCTGTTTGGCTGTGTGCTCAGTTGA  
CTCTGATTGCATCTGTTTTCTTAATTCACGACTGTTCTGGGCACGGAAGGACCCCTGGATGTGGAGTCTTCCC  
CTTTGGCCCTCTCACTGGCCTCTGGGCTAGCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCTGTGTGTCT  
GTCCAGCCTTGCACTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCATGCGAGATATTTATACCTCAAA  
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTGAATCCAGCTCAGTGCCT  
GGGTGGCCCTCTCAGGTGGCCCTGACCTGCGTTGACAGAGGTTCCACCTGTGAGCAGGCCCGCCCTGGGGCC  
TCTTCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGGAGGCAGGGCCAGGAGAACAAAGTGTGGAGGC  
CTCGGGAGTGGCTTTTCCAGCTCTCATGCCCGCAGTGTGGAACAGGCAGAAAGGATCCTAGGAAATAAGTG  
TCTTGGCGGTCCCTGAGAGTCTCTGTAATCCAGCCAGTGTTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG  
CCCCGAGATAGAAGGGGAGCCTTGTGTTCTTCTGACAGCTGAGATGAACACTGGATGGGCAGAGGTGGCM  
CAGGACCATGGCACCCCTTAGAGTGCAAGACTGGGGGAGAGGCTGCTTGAAGGGCAGGACTGGGGATACCTGC  
CTGTCACTCAGGGCATCACTGAACAAACATTTCTGATGGSAACTCCTCGGCGAGAGCCAGGCTGGGGAAGTG  
AACTACCCAGGGCAGCCCTTTGTGGCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG  
ATTATTTAAGTGATATTGATCATTTGGTTTTCTGTGATTGTCAATAACATTGTTTTGTATTGTTGGTGTGTTGT  
TATTTATTATTGTAATTTCAAGTTTGCTCTACTGGAGAAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTC  
TCTACCACTCTACCTCTGAATGTGCTGGGAACCTCTTGGAGCCTGTGAGGAACCTCTCACTGTTTAAATATTT  
ATTTATTGTGACAAATGGAGCTGGTTCTTAGATATGAATGATGTTTGAATCCCCATTTTCTGTTCAGCATG  
TTATATTTCTATAAAATAAAGCAAAAGTCAATATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 645**

MCRTLAAPPTTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSHKENRNFSEDVLGWRESFDLLSSKNG  
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEFFICSEAPKEVNIDHETRELTRMNLQTATAT  
CFDAAQGKTRITLMEKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT



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**FIGURE 646**

GGGGCTACCGCGCCTTTGCTTCTTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCTGCTCTACTACGTGCT  
GCCCTGCGCCCGCAGCC**ATG**TGCCGCACCCCTGGCCGCTTCCCCACCACCTGCCTGGAGAGACCCAAAGAGTTCA  
AGACACGCTCGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG  
GCAGTAAACACAGCAAAGAGAATAGAAACTTCTCAGAAAGATGTGCTGGGGTGGAGAGAGTCGTTCCACCTGCTCG  
TGAGCAGTAAAAATGGAGTGGCTGCCCTCCACGCTTTCTCTGAAGACAGAGTTCACTGAGGAGAACCTGGAGTTCT  
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCCTCCAGGGCACACCAGATCTTTGAGG  
AGTTCAATTTGAGTGAAGCCCTAAAGAGGTCAACATTGACCATGAGACCCCGAGCTGACGAGGATGAACCTGC  
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCCTGATGGAGAAGGACTCCTACCCAC  
GCTTCTGAAGTCGCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCTCTGCCACTCTGTCCAGCTGCA  
GCCTGGACGAGCCCTCACACACC**TGAC**TCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTACCC  
ATCCCCGAGGTGGCTGCCCTGTGTGGGAGGCAAGTTCTGCAAGCAAGTGCAAGAGGACAAAAA  
AAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG  
GAGAGGAGCCGCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA  
AAAGGTGGTATGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTCTAGTGTGGTTAGGAAACA  
TGTGGATAAAGGGAAACCATGAAAATGAGAGGAGGAAGACATCCAGATCAGCTGTTTGGCTGTGTGCTCAGTTGA  
CTCTGATTGCATCTGTTTTCTTAATTCACAGACTGTTCTGGGCACGGAAGGGACCTGGATGTGAGACTTCCC  
CTTTGGCCCTCTCACTGGCCTCTGGGCTAGCCACAGAGTCCCTTAGCTTGTACCTCGTAACACTCTGTGTGTCT  
GTCCAGCCTTGAGTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCATGCGAGATATTTATACCTCAAA  
CACTGGCCTGTGAGCCCTTTCAAAGTCAGTGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCCTCT  
GGGTGGCCCCCTGCAGGTGGCCCCCTGACCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC  
TCTTCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGAGGCGAGGGCCAGGAGAACAAAGTGTGGAGGC  
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCGCAGTGTGGAACAAGGCAGAAAGGATCTTAGGAAATAAGTC  
TCTTGGCGGTCCCTGAGAGTCCTGCTGAAATCCAGCCAGTGTTTTTTGTGGTATGAGAACAGGCAAAAGAGATG  
CCCCGAGATAGAAGGGGAGCCTTGTGTTCTTTCTGACAGCTGAGATGAACCTGGAGTGGGCAGAGGTGGCM  
CAGGACCATGGCACCTTAGAGTCGAAAGCTGGGGGGAGAGGCTGCTCTGAAAGGCGAGCACTGGGGATACCTGC  
CTGTCACTCAGGGCATCACTGAACAAACATTTCTGATGGSAACCTCTGCGGCGAGGCCAGGCTGGGGAAGTG  
AACTACCCAGGGCAGCCCCCTTGTGGCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG  
ATTATTTAAGTGTATTGTATCAITGGTTTTCTGTGATTGTCATAACATTGTTTTGTTATTGTTGGTGCTGTTGT  
TATTTATTATTGTAATTTCAAGTTTGGCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCTGACTGTCTCCCTTCT  
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGAGCCTGTGAGGAACCTCTCACTGTTTAAATATTT  
ATTTATTGTGACAAATGGAGCTGGTTTCTAGATATGAATGATGTTTGAATCCCCATTTTCTGTTTTCAGCATG  
TTATATTCTTATAAAATAAAAGCAAAGTCAATATGAAAAA

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**FIGURE 647**

MCRTLAAPPTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSENRFSEDVLGWRESFDLLSSKNG  
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT  
CFDAAQGKTRTLMEKDSYPRFLKSPAYRDLAQAASAATLSSCSLDEPSHT

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**FIGURE 648**

GAGCCGACGCCGAGCGTCCGCCGTGCCGTGCGCCTCTGCGCTCCGCGCC**ATGG**CCGCCCTCAACTCCCTGGAGG  
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGCGCTGCAGCGGG  
AGCTGGACGGCGAGCGCGAGCGCGCAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG  
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG  
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGCCATGAAGGATGAGGAGAAGATGGAGATTCAAG  
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG  
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG  
AAGAACTCAAGAATGTTACTAACAACTCGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA  
AATATGAAGAAGAAATTAACCTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA  
CGGTTGCAAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAAACTTGCCACGGCCAAAGAAAGAGAACGTGGGCT  
TACATCAGACACTGGATCAGACACTAAACGAACCTAACTGTATAT**TAA**GCAAAACAGAAAGATCTTGTTCACACAG  
AAACTCTGGAGCTCCGTGGGTCTTTCTCTCTCTTGAAGAAGTTCCTTTTGTATTGCCATCTTCGCTTTGCTG  
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA  
TTCCCTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTAATTTTTTCCCTTAAGTAGCATTATTCCT  
AAGGTAGGCAGGGTATTTCCTAGTAAGCATACTTCTTAAGACGGAGGCCATTGGTTCTCGGAGAATAGGCAG  
CCCCACACTTTGAAGAATACAGACCCAGTATCTAGTCGTGGATATAATTAACACGCTGAAGACCATAACCTTTT  
GGGTCAACTGTTGGTCAAATATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT  
AAAAGGACTGTTGGGGCCGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG  
GCCCTTCTCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA  
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATGATCCTTGATGTGATGTTCTTTTGCAATTTCCCT  
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTCGCCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA  
TCACTTGAGGTGAGGAGTTGAGACCGCCAGCCAAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT  
ATGGTGAGCGCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG  
ACTGCAGTGAGCCGATATCGCACACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAATA  
AAAAATAAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC  
AGTCCAATTTCAGGTGAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA  
GCAGAAAGGCCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCAACTCTATTTCATACTTCAGGGAACAGCAAAT  
TGAGGATTACTTATCTAGGACTT

**FIGURE 649**

MAGLSLEAVKRKIQALQQADEAEDRAOGLQRELDGERERREKAEGDVAALNRRIQLVVEELDRAQERLATALQ  
KLEEAKEAADESERGMKVIENTRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEERAEVS  
ELKCGDLEELKNVTNNLKSLEAASEKYSEKEDKYEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA  
QAKEENVGLHQTLDTLNEINCI

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**FIGURE 650**

GTCTCGCCGAGCTGTGAGGGCAACGGAGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGTGCG  
AGACCTCGGCCCGACATCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGTCCCCTCTATGTGCTGCTGAGCCG  
GTCTTGACGCGACGAGCCCCCTCGGCTTCGGAGCAGAAATCGCAAAAACGGAAGGACTGGAATGCGCAGAC  
CATATGATGGCCATGAACCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCCTGCCCAACCGCATG  
GGCATGGGGCAGTTCCCGAGCCCCATCACCACCAGCAGCAGCCCCAGCACGCTTCAACGCCCTAATGGG  
GAGCACATACACTACGGCGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTG  
AACGGAGGGCACCCCCGAGCGCGCTGGCCCCCGCGGCCAGGTTTAACTCTCCAGTTTCATGGGTCGCCCGGTG  
GCCAGCCAGGGAGGCTCCCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCCAGTATTCAACCATCACCCC  
TACCCCAACAACCACTACATGCCGGATTGACCCCTGCTGCAGGCCACCCAGATGAACGGGACAAACAGCAGCTTC  
CGAGATTGCAACCCCAAGCACAGCGCGCGGCAGCAGCACCCCCGCGGCTCGGGCGGCAGCAGCACCCCCGCGCGG  
TCTGGCAGCAGCTCGGGCGGGCGCGGGCAGCAGCAACAGCGCGCGCGGCAGCGGCAGCGGCAACATGCCCGCC  
TCCGTGGGCCACGTCGCCGCTGCAATGCTGCCGCCAATGTCATAGACACTGATTCATCGACGAGGAAGTTCTT  
ATGTCCTTGGTGATAGAAATGGGTTTGGACCGCATCAAGGAGCTGCCGAACCTCTGGCTGGGGCAAAACGAGTTT  
GATTTTATGACGGACTTCGTGTGCAACAGCAGCCAGCAGAGTGAGCTGTTGACTCGATCGAAACCCGCGCGAA  
AGAAATCAACCCCCAATTCTTCGGCGTGAAATTAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGA  
TCTTGAAAGGTTTGAGAACTTGAAACAAAGTAAACTATAAACTTGACAAATTGGTTTTAAAAAAATTTGCTGC  
CACTTTTTTTCTGTTTTGTTTCGTTTTGTAGCCTTGACATTACCCACCTCCCTTATGTAGTTGAAATATC  
TAGCTAACTTGGCTTTTTTCGTTGTTTGTCTTTTACTCCTTTCCCTCACTTCTCCAGTGCCTCACTGTTAGATAT  
TAATCTTGGCAAACTGCTTAATCTTGTGGATTTGTAGATGGTTCAAATGACTGAATGCATTAGATTACGA  
GTGAAAGGAAAAATTGCAATTAGTTGGTTGCATGAACTTTGAAGGGCAGATATTACTGCACAACTGCCATCTCGC  
TTCATTTTTTTAACTATGCATTGTAGTACAGACTAATTTTTAAATATGCTAAACTGGAAGATTAAACAGATGTG  
GCCCCAACTGTTCTGGATCAGGAAAGTCATCTGTTCACTTTCAAGTTGGCTGTCCCCCGCGCGCCCCCCCCA  
CCCCCATATGTACAGATGATAATAGGGGTGGAATGTCGTGAGTGGCAAACTTTCACAGATTAATTTGTTCTG  
TCTTCAACATTTTTGACACTGTGCTAATAGTTATATTCAGTACATGAAAGATACACTGTGTTGAAAGCCTTT  
AGGAAATTTGACAGTATTTTGTACAAAACATTTTTTGA AAAAATACTGTGTAATTTATCTATTTTAATTTG  
CCAATGCAATAAAAGTTAAGAAATAAAAAAAAAAAAAAAAAA

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**FIGURE 651**

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFSPPHHHQQQQPOHAFNALMGEHIIHYGAGNMNATSGIRHAMGP  
GTVNGGHPPSALAPAAARFNNSQFMGPPVASQGGSLPASMQLQKLNNQYFNHHFYPHNHYMPDLHPAAGHQMNMTN  
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE  
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

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**FIGURE 652**

AAATCGCGAAACCCGGCGAGCGGGCGCTGGCTATCGAGCGAGCGGGCGGAACCGGGAGTTGCGCGCCGCTCGG  
GCGCGGGGCTCGGTGCGGGCGCGAGCCCGCGGGTTCGCCCTCCCGTGCCTCGCCCCGGACACCCCTGGCCGTGGA  
CACCTTGGCCGTGGGCACCCCGGGGCGCGCGCGCGCTGCGCGGGCGCGCGCGGGG**ATGA**AGGTCAAGTGTG  
CTCGAGCGGGCGCAAGTGCCTGCCAAGGAGGCGGGCGCGCGCTGCGTGGTGCTCGACTGCCGGGCC  
TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGCGGGCC  
CGGGGCGCGCGGGTGTGGCGCGCTACGTGCTGCCGACGAGGCGGGCGCGCGCGGCTCCTGCAGGAGGGCGGG  
GGCGGGCTGCGGGCGTGGTGGTGTGGACCAAGGCGAGCCGCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG  
CGTGTCGTCTCACTCGCTACTCGCTTGCTTACC CGCGGGCTCTACTTCTCAAAGGGGATATGAG  
ACTTTTACTTCGGAATATCTCTGAGTGTTGCGTGGATGTAAACCCATTTCACAAGAGAAGATTGAGAGTGAGAGA  
GCCCTCATCAGCCAGTGTGGAAACCAAGTGGTAAATGTCAGCTACAGGCCAGCTTATGACCAGGGTGGCCAGTT  
GAAATCCTTCCCTTCTCTACCTTGGAAGTGCTACCATGCATCCAAGTGCAGGTTCCTCGCCAACTTGACATC  
ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCTGCATGACCCACCTACACTACAAATGGATCCCTGTG  
GAAGACAGCCACACGGCTGACATTAGCTCCCATTTCAGAAGCAATAGACTTCATTGACTGTGTCAGGAAAAG  
GGAGGCAAGGTCTCGTCCACTGTGAGGCTGGGATCTCCCGTTACCCACCATCTGCATGGCTTACCTTATGAAG  
ACCAAGCAGTTCGCGCTGAAGGAGGCTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC  
TTCATGGGCGAGCTCTGCGAGTAGCAATCTGAGATCTGCCCTCCACGCCCAACCCCGAGCTCCCTCTGCCAA  
GGGGAGGCGAGCGGCTCTTCACTGATAGGCCATTTCAGACACTGAGCCCTGACATGCAGGGTGCTACTGCACA  
TTCCTGCTCGGTGCTGGCACGGTGCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG  
GCCACATCTGCT**TAA**AACTGGGATGGAGGAATCGGCCAGCCCAAGAGCAACTGTGATTTTGTTTTAAAGACT  
CATGGACATTTTCATACCTGTGCAATACTGAAGACCTATTCTGTCTATGCTGCCCCAGTGAGATAGTGAAGTGGTCA  
CCAGGCTTGCAAAATGAAGTTCAGACGGACCTCAGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG  
AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTTGGGACTGCCAGTCTTGCACCTCAGAGT  
TCGCCTTTTTCAATTCAAAGCATAAGCCAATAAATACCTGCAGCAACGTGGGAGAAAGAGTTGCTGGACAGGAGA  
AAAGGCAGTTATGAAGCAATTCAATTTGAAGGAAGCACAAATTCACCTTATTTTTGAACTTTGGCAGTTTCA  
ATGTCTGTCTCTGTGCTCGGGGCATAAGCTGATCACCGTCTAGTTGGGAAAGTCAACCTACAGGGTTTGTAGG  
GACATGATCAGCATCTGATTTGAACCTGAAATGTTGTGTAGACACCCCTCTGGGTCCAATGAGGTAGTTGGTT  
GAAGTAGCAAGATGTTGGCTTTTCTGGATTTTTTTGGCCATGGGTCTTCACTGACCTTGGACTTTGGCATGATT  
CTTAGTCATACTGAAGTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCTTTGGGAAAAGAGTCTTTCAGA  
TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGTAGGTATC  
CTGGGTGAGTGGCGGTGCAAACTGGTTTCTCAGCTGCTGTCTTCTGTGTGCTTATGTCTCTTGTGACAATTG  
TTTTCTCCCTGCCCTGGAGGTTGTCTTCAACTGTGACTTCTGGGATTTGCAGATTTTGCAACAGTGGTACTAC  
TTTTTTTCTTTTGTCTGTGTTATTTCTCCAGGGGAAAAGGCAATAATTTCTAAGACCCGTGTGAATGTGA  
AGAAAAGCAGTATGTTACTGTTGTTGTTGTTGTTCTGTTTTTATATGTAAAAATAAATAGTGAAGGAG

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**FIGURE 653**

MKVTSLDGRQLRKMLRKEAAARCVVLD CRPYLAFAASNVRGSLNVNLNSVVLRRARGGAVSARYVLPDEAARARL  
LQEGGGGVAVVVLDQGSRRHWQKLREESAARVVLTSLLA CLPAGPRVYFLKGGYETFYSEYPECCVDVKPISQEK  
IESERALISQCGKPVVNVSYRPA YDQGGPVEILPFYLYLSAYHASKCEFLANLHITALLNVSRRTSEACMTHLHY  
KWIPVEDSHTADISSHFQEAIDFIDCVREKGGKVLVHCEAGISRPTICMAYLMKTKQFRLKEAFDYIKQRRSMV  
SPNFGFMGQLLQYSEILPSTPNPQPPSCQGEAAGSSLIHLQTLSPDMQ GAYCTFPASVLAPVPTHSTVSELSR  
SPVATATSC



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**FIGURE 654**

GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTGGATGTGAAAAACAATGAGAAGGAGGACA  
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT  
TCAGATCTGTGTACAGTTTCTTTTGTCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATATCATTAACT  
TTCACACAAAAGGAAAAATGAGGCTGAAATGGTGTGGGCAAGGCCAGGAATCTGGAGCATCCCTAACCAAGCAGC  
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTCACTTACTGATTACTACAATCAAAAAAGATACGACACT  
AATTTACCACATTCTTCTTACTTATTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGGAGAAAGTAGAGTG  
ACGCAGCTAAGGGAGTAAATCGACCTCAGCCACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT  
GACCCCGCGGCCATCTCCAAGGGGGCGGGTATCACAAACCCGACGCCACACCGTATCATTCGCAAAACTCC  
CGCGCTCCCACGAGAAGTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGACCCACAGCAC  
CGCGGCGAGCTAGTGCCGACTCCCGCTAGCTCTTTTGACTCTGTTGCGGGAGAAGTGGGAAACAGTAAGG  
TTGCGGCGCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGAGTCCCCCGCGCACCCAGCACCAGCGAGCTTCA  
CACCCCACTTCCGGGTCAAGTACCCGCGGAATCTCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCTAT  
CCAAGTCCCGCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGTCACTAAGCAGCCAAT  
CTCCACTTCCGACTCATCGACCCCTTCTCCACCCCTTTCAGAGACAGCGGATTGCGATTAGGTTTCCGCGC  
ATTTAATTGGCAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCATAGACACCCGCGGG  
CGCACAGTTTCAGTCTCGTGGGTTTCCGCGAGCGCAGTCTTGGACCATAATCATGTTGGACATGATGGACT  
TGCCCAGGTGCGCATCAACGCCGCGATGCTAGCTCAATTATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG  
AAAAGATTATCCACCGGAAAAATGTTATTTCTTCAGATGGAGAGGAAAAAATGGAACCATCGAGTTGATGG  
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTGGAAAGATAACCGCCAAGGCCCATCTTGTGTA  
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAATTATCC  
ATGACTTCCCTCAGTTTATCCTTTAGGGAATTGTGCAACATGATGATCTTGTATGGATTTCATACGATTGTAAA  
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 655**

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA  
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

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**FIGURE 656**

AGCCGCCGCTCGCCGCTTCCCTCTCGTCGGAGCGGCCGCTCGTCCGCCGGCTTGAGGCCCGCGGGGAGCGCGGC  
GCAATTCTGCGGCCCGCGGGGGGGCGGCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGCG  
CTGGG**ATG**CGCGCTCGCGGCCCGCGGAGTACAAAGCGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC  
ACTGCGCCGGCCGGATTGATGAACCTCCAGAGGGCGCTGTGAAGCCTCCAGCAACAAGTATCCTATCTTCITTT  
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTGGAA  
AGTCAAAACAAACGGAAGGATTTAACGAAGGATTGTGGGAAATAGAAAAATAACCCAGGAGTAAAGTTTACTGGCT  
ACCAGGCAATTTCAGCAACAGAGCTCTTCAGAAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG  
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAAGAAAGATGAAAAGCAGGCTCAAACGGAAAAAGT  
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAAGAAG  
AGGAAAAACAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCAAAAA  
CCAGTGAAGGGAC**TAA**CTACCATAATGAATGCTGCATATTAAAGAAACCACAGAAGGTTATATGTTTGGTTG  
TCTAATATTCTTGGATTGATATGAACCAACACATAGTCCTTGTGTGTCATTGACAGAACCCAGTTTGTATGTAC  
ATTATTATATTCTCTCTGTTGTGTTTCGGGGGGAAAGACATTTTAGCCTTTTTTAAAGTTTACTGATTTAAAT  
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTTATCAAGATTTTTCGCGCAGACTTATACATG  
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCACCATCATCAACACTCAGTT  
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTTCCTCTGTGACAGAAC  
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAATTTGTCCTTCAGTTTTCGAGGC  
ATGTGTAAGTTTAAACCATATTGTAATAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA  
AAATTATATTTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT  
AAAGGCAATGATTTATTTTTTCCAGTGCCAATACATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT  
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAGCATTGACTTTTAAATGTAGACTTTTAAAAATAA  
ACTGTTTTCTTTTGAACACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT  
GCTATTGTGATAATAGAGAATTTTATTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG  
TTTTATCAATCCTGTTAATGCTTGTCCCTGGAAACATCTTCGCGTATTCACGGTTTGAGTTGAAAAGTTTACTG  
TAAAAAATCAAAAACAAAAAATGATTGTTTTTACAGAATAAATTTATGGGATGTGTACTGGGAGTAAGATT  
TGAGGTTGTAAGCAACTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAAATCATATA  
TTAAAGCAAAAATTTGTTCCGAGC

**FIGURE 657**

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPGVKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY  
TSKKSSKQSRKSPGDEDDKDCKEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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**FIGURE 658**

AGCCGCCGCTCGCCGCTTCCCTCTGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGCGCAATTCGTCGGCCCGCGGGGGGCGGCCCTCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGGCTGGGATGGCGCGCTCCGCGGCCCGCGGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGCACTGGCCGCCCGGATTGATAACTCCCAGAGGGCGCTGTGAAGCCTCCAGCAACAAGTATCCTATCTTCTTTTGTGGCACCCATGAACTGCATTTCTAGGTCCCAAAGACCTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAAGTCAAAACAAACGGAAGGATTTAACGAAGGATTGTGGGAAATAGAAAAATAACCCAGGAGTAAAGTTTACTGGCTACCAGGCAATTCAGCAACAGAGCTCTTCAGAAACTGAGGGAGAAGGTGGAAATATCGAGATGCAAGCAGTGAGGAAGAAGTGATAGAGTAGAAGAAGTGGAAAAGGCCAAAAGAAAGATGAAAAGCAGGCTCAAAACGGA AAAAGTCATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAGAAGAGGAAAACAAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCAGAAAAACAGTGAAGGGACCTAACTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTGTCTAATATTCTTGGATTGTATATGAACCAACACATAGTCCTTGTTGTCATTGACAGAACCCAGTTTGTATGTACATTATTTCATATTCTCTCTGTGTGTTTCGGGGGAAAAGACATTTTAGCCTTTTTTAAAGTTACTGATTTAATTTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATGCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTTGCCCTTGACCCCACTCATCAACACTCAGTTAAATATAAATTAACATTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCCCTCTCTGTGACAGAACCCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAATAATGTCCTTCAGTTTTGAGGCCATGTGTAAAGTTTAACTATTGTAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCAAAATTCATATTGTTATGTACAAAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTGTGTTACTCCAAATAAAGGCAATGATTTATTTTTTCCAGTGCCAATACAATTTGAGCTAAGCACTCAAGGTGGATACTTTACATTTTAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAAACTGTTTTCTTTTGGAACTACAATTAGAAATAGTTAATATTATCCTTAAACCATTTATTATGTGTACATTATTGTTGCTATTGTGATAATAGAGAAATTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGGTTTTATCAATCTCTGTTAATGCTTGTCTTGGAACATCTTTCGCGTATTCACGTTTTGTAGTTGAAAAGTTTACTGTAAAAAATCAAAAACAAAAAATGATTGTTTTTACAGAATAAAATTTATGGGATGTGTACTGGGAGTAAGATTGAGGTTGTAAGCAAACTAAGTTAGTGTAATTTGGCTTCATATATGTACGTAGGATTAAATGTAATTCATATA

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**FIGURE 659**

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPGVKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY  
TSKKSSKQSRKSPGDEDDKDCKEENKSSSEGGDAGNDTRNTTSDLQKISEGT

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FIGURE 660A

CCGTTACACGCGTTCCGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGACCATGACGACCCCCAGGCAGGTGG  
TCAACTTTGGGCCCTGGTCCCGCCCAAGCTGCCGCACTCAGTGTGTGTAGAGATACAAAAGGAATTATTAGACTACA  
AAGGAGTTGGCATTAGTGTCTTCTGAAATGAGTCACAGGTCATCAGATTTTGGCAAGATTATTAAACATACAGAGA  
ATCTTGTGCGGGAAATGCTAGCTGTTCACAGACAATATAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT  
TCAGTGTCTGCCCTTAAACCTCATTTGGCTTGAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT  
CAGCTAAGGCCCGCAGAGAAGCCAGAAAGTTTGGGACTATAAAATATCGTTACCCCTAAACTTTGGGAGTTATACAA  
AAATTCAGATCTCCAGCACTTGGAACTCAACCCAGATGCCCTCCTACGTGTATTATTGGCAAAATGAGCGCTGC  
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCTCTCAAACCTTCCTGT  
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGTCTGGTGGCCAGAAGAATGTTGGCTCTGCTGGGTC  
CCGTGGTGATTGTCGCGTATGACCTCTGGGGTTTGGCCCTCCGAGAGTGCCTCGCTCGGAATACAAGGTGC  
AGGCTGGAACAGCTCCTTGTACAAACAGCCCTCCATGTTTCAGCATCTACGTCATGGGCTTGGTCTCGGATGGA  
TTAAAAACAATGGAGGTGCCCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTATAGATATTG  
ATAATCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATCCCTTCCGCAATTG  
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAGATTTCTTGATAAAGCTTTGAACCTCAATATGTTGCTCTGA  
AAGGGCATAGGTCGTGGGAGGACCTCGGGCCCTCTCTGTATAATGCTGTCAAACTTGAAGACGTTTCAGAAGCTGG  
CCGCCCTCATGAAAAAATTTTTGGAGATGCATCAGCTATGCAACACATCTTAACAGGATATACTCTGTCTTGAA  
CAACTACAAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAGTTTAACACAGTATTTTTCTCAAATGAACATGTT  
TTATGCAAGTTCTCTTTTTTGAAGAACACACAGCAAAACATCCACAACCTCTGTAAGCTGGTGGGACCTAATGT  
CACCTTAATCTGACTTGAACCTGGAAGCATTTTAAGAAATCTTGTGCTTTTCTAACAAATCCCGCGTATTTTG  
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCCCTGGGACTTAATAATGCAAGTTGCGATTAAATATT  
TCTGGAGTCATGGGAACACACAGCACAGAGGTTAGGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC  
TCTGGGTTTCAGTGGCTGTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTAAAGAGTCCAGGCGCAAGG  
GCAAACTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACCTTATATATTGTTATATTGATCAAGG  
TCTGTTTTTAATACCATATCTTTATATTTCTATACATTTATATTTCAATATAACGATTATACGCTGATATATGT  
AGACACTTTTAGAATTTATTAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGACACCCCTCC  
CCAGTCTTCGCCCTTCTCTTTTTAAGCTGTTTTATGAAAAGACCTAGAAGTCTTGATTCAATTTTACCATTCT  
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTGTGTTTTCAATATATGCCATTAAACATAACATTCTGTGTA  
TTACCTCTATCCTTTGTTCTCTACTGTTTTCTTGTAAATGTATGACTACGAGAGTGAATCTTTGCTGAAAAGCTCT  
TCCCTATTGTTATCTATTGTCAGTATTTATGTTGAATATGTAAGAAGATTAAGTCTTAAACACCGTTCTA  
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGTCTGTTTGGTGTGTTGATGCATATTCGTGATGTAAACAGGTCCTG  
GGGCTCAGTTTACCCCAATTTGTAAAAATGGGGCTAATGTACCTGCCCTCTTACCTACCTCAGAGGGATTGGTGA  
AGCAAACTGTTAATCTCTGAAAACGACCATTTCACTTCTTGATATCAAGTGCCTAACCCAGTATGTTCTCTTTT  
TTATGTAAGGGACAGCTTTCTCCACAGAGTCTTCTGCTGGTGAGGACAGCATTCTGAGCAGGGCTTTGTTCT  
CTATGTGCATTAGGACTTTTATCATGCCCTTGTCTGTGTGTAGTTACTTGACAGCACAATGCGGCCCTCTCC  
TAATGCTCTTCAAGTTTTCAGTAAGTACGCAACCCAGCTTCCACATGGCTCTGGGCGCTGATTTTGTCTGTGAC  
TCCAGAGCCAGCCACTGTTTCTGCCACCCTGTAACAGGCCATTAAGCTCCCAAGTGTTCAGCCTCCTTCACTC  
CTTGTGTTTCCCTGTTGTATGTGTCACTTGGGCCCTACAGACAGGGGCACACGCTTTATGGATGTGTGACCAT  
GAGATGAGAAATGGGTAGATGGAACGGGACCATCAAGCCACACCCCTCTTAAACCTGGGGACATGAGCCCTGAG  
CAGAAAGGTTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGGAAAGCCAGCTCTCTTTAAACAG  
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACAGGAACCGTGCAAAGAACTGAAACCTTTCCCGC  
TGGTAGAGCAATGTTGCTGTATCTCTGTTTTCAAGGAAACCAATCAACTGTTTGTATTTCAAATGGTAAATG  
AACACTCACTATTCTTCAAGGCTCAGTAAATCTTTTTTCTTCTCATATATATACACACACACACACACA  
TATGTATATCTATACACATGTGTGTGTATATGATGTGTGTGGTGTGTGTATAGTTTATAGTCTCA  
AGCCAAGCAAGTTTGTGTTTGGATGAGGGGAACTTAACATTAACATAAGTTGTATGCTGTGGTATCTTGAT  
TTCCCAATTTCAAAGATGAATTTCAACAAAGCTAAAGCGTGAATTAGAGCTGGACTTAAGACTATTGGCCG  
ACCATCTGTGCTGGCCCTGGCCCTCGAGTAAGAAGCGTGTCTGGGCTGTGGAGAAGGGGTGCTCCGAGAGTGTG  
CAGGTGGCCCTTCCCTTGGAGGCGAGAAGAGAGAAATGTGCTGTCTATCTTCTGGTTTTCACTCCACAGAGTGC  
GTAGACCAAGGGTTACGTGACTGGGAAAAATCTACATCTCCTTGTCTGAAACATATTTCCCTGCTGTTCTCTTT

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**FIGURE 660B**

CTAACATGTTGTGGTAAATCTGTTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAACC  
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 661**

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNTENLVRELLAVPDNYKVI FL  
QGGGCGQFSAPVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY  
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQNVSAGVTVVI VRDDL LGFALRECP  
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK  
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAV TIEDVQKLA AFMKKFLEMHQL

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FIGURE 662

ACTTTCCTGCCCTTCCCCGCCAAGCCCAACTCCGGATCTCGCTCTCCACCGGATCTCACCCGCCACACCCGGA  
CAGGCGGCTGGAGGAGCGGGCGCTCTAAAATTCTGGGAAGCAGAACCTGGCCGGAGGCCATAGACAGAGCCGGGC  
CTAGCCCAAGAGACATGGAGAGTTGCTACAAACCCAGGTCTGGATGGTATTATTGAATATGATGATTTCAAATTGAA  
CTCTCTCAATTGTGGAACCCAGGAGCCAGCCCCAGAAACAGCTGATGGCCCTACCTGGGCTGCTGGGAACAGCC  
TAAGCAGAGAGGCTTCCGATTTGCATATGGCTGTGAAGGCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGA  
GAAGGGGCCAAAGACCTATCCCATCTGTCAAGATCTGTAACACGAGGAGCCAGCCAAAGATCGAGGTGGACCTGGT  
AACACACAGTGACCCACCTCTGTGCTCATGCCACAGTCTGGTGGCAAGCAATGCTCGGAGCTGGGGAATCTGCGC  
CGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATTAAACAACCTGGGTGCTCTGCATGTGACTAAGAAGAACAT  
GATGGGACTATGATACAAAACTTCAGAGGCAGCGGCTCCGCTCTAGGCCCCAGGGCCCTACGGAGGCCGAGCA  
GCGGGAGCTGGAGCAAGAGGCCAAGAACTGAAGAAGGTGATGGATCTGAGTATAGTCGGGCTGCCCTTCTCTGC  
CTTCTCTAGAGCCAGTGATGGCTCCTTCTCCCTGCCCTTGAAGCCAGTACCTCCAGCCCCATCCATGATAGCAA  
ATCTCCGGGGCATCAAACCTGAAGATTTCTCGAATGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGT  
TTATCTGCTTTGTGACAAGGTGCAGAAAGATGACATTGAGGTCGGTTCTATGAGGATGATGAGAATGGATGGCA  
GGCCTTTGGGAGCTTCTCTCCACAGATGTGCATAAACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAA  
GATGAAGATTGAGCGGCCTGAACAGTGTCTTCTGCAACTGAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAA  
ACAGTTCACCTATTACCTCTGGTGGGAAGACAAGGAAGAGGTGACGCGGAAGCGGAGGAAGGCCTTGCCACCTT  
CTCCACGCTCTCGGGGTTGGCTCCCACATGGGTGGAGGCTCTGGGGGTGACAGCCGGGGCTACGGAGGAGCTGC  
AGGAGGTGGCCCTCGGTTCTTCCCTTCTCCCTGCGCTACAGCCCTACCACTGTCGGCGCGGGCCCCATGCG  
GTGCTACCCGGGAGGCGGGGCGGGGCGCAGATGGCGGCCACGGTGCCAGCAGGGAATCCGGGGAGGAAGCCGC  
GGAGCCGAGCGCCCCCTCAGGACCCCCAGTGCGAGCCGAGGCCCGGAGATGCTGCAGCGAGCTCGAGAGTA  
CAACCGCGCGCTTCTCGCGCTGGCGCCAGCAGCCCCGAGCCCTACTCGACTCTGCTGACCCGCGAGCCGCGC  
GCTGCTGGCGGACGCGCCACCTGTCTGACGGCGCAGGACGAGAACGGAGACACACCCTGCACCTAGCCATCAT  
CCACGGGCAGACCAGTGTCTTGAAGCAGATAGTCTATGTCATCCACCACGCCCAGGACCTCGCGGTTGTCAACCT  
CACCAACCACCTGCAACGAGACGCCCTGCACCTGGCGGTGATCACGGGGCAGACAGTGTGGTGAGCTTTCTGCT  
CGGGTAGGTGCAGACCCAGCTCTGCTGGATCGGCATGGAGACTAGCCATGCATCTGGCGCTCGGGGACGGCGC  
TGGTGCTCTGAGCTGCTGCGTGCACTGCTTCAGAGTGGAGCTCTGCTGTGCCCCAGCTGTTGCATATGCCCTGA  
CTTTGAGGACTGTATCCAGTACACCTGGCGGTCCGAGCCCCAAGCCCTGAGTGCTTGGATCTGCTGGTGGACAG  
TGGGGCTGAAGTGGAGGCCACAGAGCGGCAGGGGGGACGAACAGCCTTGATCTAGCCACAGAGATGGAGGAGCT  
GGGGTTGGTACCCATCTGGTCAACCAAGCTCCGGGCCAACGTGAACGCTGACACTTTTGGGGAAACACACCCCT  
GCACCTGGCAGCTGGAAGTGGGTACCCGACCCCTACCCGCTCTCTTCTGAAGGCTGGTGTGACATCCATGCTGA  
AAACAGGAGGCCCTGTGCCACTGCCTTACCCCTTACCTCTGATAGCGACTCGGACTCTGAAGGGCTGAGAA  
GGACACCCGAAGCAGCTTCCGGGGCCACAGCCTCTTGAACCTCACTTGACGACCTTGGTGAAGACCTTGTGCT  
AAATGCTGCTCAGAACACCATTGGAGCCACCCCTGACCCCGCCAGCCAGCAGGCGCGGGACTGTCACTTGGTGA  
TAGAGCTCTGCAGAACTGGAGCAGCTGTAGACGGGCCAGAAGCCCAGGGCAGCTGGGCAGAGCTGGCAGAGCG  
TCTGGGGCTGCGCAGCTCTGGTAGACAGTACCGACAGACAACCTCACCCAGGCTCTGGCGCAGCTACGA  
GCTGGCTGGCGGGACCTGGCAGTCTACTGGAGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAAGGCTGCT  
GAGGGGTCCAGAAACCCGAGACAAGCTGCCAGCACAGAGGTGAAGGAAGCAGTGCCTACGGGAGCCAGTCACT  
GGAGCAGGAGGAGCAAGCTGGGGCCACCCCTGAGCCACAGGAGGGCTCTGCGACGGGCACCCCCAGCCTCA  
GGTAGTACCTGCTGCTGCTGCCCCAGCCCTTCCCGGACCCCTGTACAGCGTCTCCACCTATTTCAAATCTT  
ATTTAACACCCACACCCACCCCTCAGTTGGGACAAATAAAGGATTCTCATGGGAAGGGAGGACCCCGAATTCC

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**FIGURE 663**

MESCYNPGLDGIIEYDDFKLNSSIVEPKEPAPETADGPFYLVIVEQPKQGRGFRFRYGCEGPSHGGLPGASSEKGRK  
TYPTVKICNIEGPAKIEVDLVTHSDPPRAHAHSLVGKQCSELGICAVSVGPKDMTAQFNNLGLVHVTKKNMMGMTM  
IQKLQRQLRSRPQGLTEAEQRELEQEAKELKKVMDLSIVRLRFS AFLRASDGFSFLPKPVTSQP IHD SKSPGA  
SNLKI SRMDKTAGSVRGGEVYLLCDKVQKDDIEVRFYEDDENGWQAFGDFSP T DVHKQYAIVFRTPPYHKMKIE  
RPVTVFLQLKRKRGGDVSDSKQFTYYP LVEDKEEVQRRRRKALPTFSQPFGGSHMGGSGGAAGGYGGAGGGGS  
LGFFPSSLAYSPYQSGAGPMRCYPGGGGGAQMAATVPSRDSGEEAAEPSAPSRTPQCEPQAP EMLQRAREYNARL  
FGLAHAAPSPTRLRRHRGRALLAGQRHLLTAQDENGDTPLHLAI IHGQTSVIEQIVYVIHHAQDLGVVNLTNHL  
HQTPHLHAVITGQTSVVSFLLRVGADPALDRHGDSAMHIALRAGAGAPELLRALLQSGAPAVPQLLHMPDFEGL  
YPVHLAVRARSPECDLLVDSDGAEVEATERQGGRTALHLATEMEELGLVTHLVTKLRANVNARTFAGNTPHLAA  
GLGYPTLTRLLKAGADIHAENEELCLPLSPPTSDSDSDSEGPEKDRSSFRGHTPLDLTCTLVKTLILLNAQ  
NTMEPPLTPPSPAGPGLSLGDTALQNLQLEQLDGP EAQGSWAELAERLGLRSLVD TYRQTTPSPGSLRLSYELAGG  
DLAGLLEALS DMGLEEGVRLLRGPETRDKLPSTEVKEDSAYGSQSVEQAEKLGPPPEPPGGLSHGHPQPQVTDL  
LPAPSPPLPGPPVQRPHLFQILFNTPHPPLSWDK

TTCTAGTTTGGGGTTTCAGGTTTGGCGCTGCCGGCCAGCGTCTCTGGCCATGGACACCCCGGAAAAATGTCTTCA  
GATGCTTGAAGCCACATGCGAGCTACAAGGGCAATGACCCCTCTTGGTGAATGGGAAAGATACATACAGTGGGT  
AGAAGAGAAATTTCTCTGAGAAATAAGAACTACTTGATAACTTTACTAGAACATTTAATGAAGGAATTTTAGATAA  
GAAGAAATACCAACATGACCCAAAGATTCTACAGTTATTGTTTAAAAATTTGCTGAGTACACAGCTGACCTTCCATCA  
ATTTTTTGAGTTTCTGTACAACCATGGGATTGGAACCTGTCTATCCCCCTGTGACATTGCTGGGCGGGCATCT  
GGAAGCCCAAGGAGAGCTGCGAGTACCGAGTGTCTCTTCAGAGAGGAAATTTAAACACAGGCTGAACCCAGAGA  
GTTCTCTGCAACACAAATACAGGTTATTTCAGACAGCCCTCACTGAAACCCATTTGGCAGCTCAAGCTGAACCTC  
AGAACCTCTGCATAATGTTACAGTTTAAATCAAATGATAACATCAAAATCAAATCCAGGAAATAACATGGCCCTG  
CATTTTCAAGAATCAGGGTTTCAGAGCTTTCTGGAGTGATATCTTCAGCTTTGTATAAAGAGTCAAATATGGAACG  
AAGAGTGATCAGGATTTCTAAATCAGAATATTCTGTGCATCATCTTTGGCATCCAAAGTTGATGTTGAGCAGGT  
TGTTATGATATTGCAAGGAGAAGCTTATCTGTGGGGAATCAGAAATTTCTCTTTGAAGAATTGAGAGCCCAAGAAATA  
CAATCAACGGAGAAAGCATGAGCAATGGGTAATGAAGACAGACATTATATGAAAAGGAAAGCAATGCTTT  
TGAAGAACAGCTATTAAACACAGAAAATGGATGAACCTCATAGAAGTTGCATCAGGTGGTGAGACATCCCATGA  
GGATCTGCCGCTTCCCAGAAAGGTCCGAGGTTAATCCAGCAGTATGGGGCAAGGTGAGGCTCCCAGCAGGA  
ACTGAGAGCGGCATGCTTCCAGTAACCTATCAGCAGACACCAAGTGAACATGGAAGAAGCAACCAAGAGGCGACC  
TCCTGTTGTTCTCTCTTTGGCAAAATGCTATTCTTCAGCTTTGGTGTCCCCAGCCACCAGCCAGAGCATTTGCTCC  
TCCTGTTCTCTTTGAAGGCCACAGACAGTAACAGACTCCATGTTTGCAGTGGCCAGCAAGATGCTGGATGTTGTA  
TAAGATACTCATGAATCAAGCCACAGAGTGGAGCAGAGATCAAGAAGGGTGTGAACACATCAAGTTGCCAA  
CACAAGTCTTTTTCACACAACCTCCAAACACATCACTGGGAATGGTTACGGCAACGCCATCCAAAGTGCAGCCATC  
ACCCACCGTGCACACAAAGAAAGCATTAGGTTTCATCATGAATATGTTTCAGGCTCTTACACTTCTTGATATTTCT  
TGATGACAAAGATGAATGGCAATCTCTAGATCAAAATGAAGATGCATTTGAAGCCGATTTCAAAAAATGTAAG  
GTCATCTGGGCTTGGGAGTCAATAAGATCATCTCTCTTTGTCATCTGCTTTTCATGTGTTTGAAGATGGA  
CAAGAAAAATATGATTACCACAGCTTAAAAATAAACCCACAGGAGCCAGGACCTTTGGAGAACGCTCTGTGAG  
CAGACTTCTTCAAAACCAAGGAGGAAGTGCCCTCATGCTGAAGAGTTTTTGGATGACTCAACTGTATGGGGTAT  
TCGCTGCAACAAAAACCTTGGCACCAGTCTTAAGAGCCACAGGAGACTTCACATCTGCTGCACAACTTGCCTCTAC  
ACCATTCCACAAGCTTCCAGTGGAGTCAGTGACATTTTGAAGATAAAGAAAAATGTGGTAGCAAAACAGTGTAC  
CCAGGCGACTTTGGATTTCTGTGAGGAAACATGGTGGTCCCTCAAGGGATGGAATAATCAGTCCAATTCAAGA  
GAAAGCCCAAAACAGGCGTTGTGCTCTACATGTATTACAGTACCTTACTCTGCTGAGCCAGCCTGCTGCAGG  
TGGGTACTTACCTGTGAGGCAGAGTTGGCGCTTGAGGCTTGACAGCTCACAGACATGACGCTGCCATTGCAAGA  
AGATCCACAGATGCTATTGCTGGGCTCCAAGCAGAAATGGATGCAGATGAGTTCACTTGGGACTGTTGATGCTCC  
AAACTTCAATGTTGGGAACCCATGGGATGATAAGCTGATTTTCAAACCTTTTACTTGGGCTTTCTTAAACAGGTGAG  
TCTCATTCAAATACTTTTGAATGGCAATGTAACCTTCCAGGATCAAGCCCAAGCATGAATTTCAATTTGGGTTCT  
TAAGCTGGTCTATGTCATCACCTTCTTGGAGAAGGAGCTTTGCCAGGTTAGCAAGCTACCCAGGAGATCT  
GAATGATGCTAAAAATAACAGAAATTTGTTTTAAAGGTCCAAAGCCCTGCCAACCCCTGGGAATTTACATTTG  
GACCCAGTTGATGGAAAGCATTAAGCCATCTATGCAGCAGATGTTTGAAGGTTCTATTCTGCCCACTTATTCA  
GAATGGCAGTGATTAGTAGGAGAGCTTACAGCTATGGAACATTATTAATGCCATTAACTCTATAAAATATAC  
CCCTGAAAAAGTGATGCTCAAGGCTTGTGATCTCTTTTGCTATGAGAATGCTTTACATGATTGAGCAAGTGCA  
TGACTGTGAAATCATTATGAGACATTTAAACAGACAAATTTTATGAAGTTCTATTCTGCCCACTTATTGGAACAGGATGA  
TGAAGATGATTTATCTGCTGGCTTGGCACTGATTGACCTGGGTGAGATATAGATATGAACATTTTCCAAAGG  
AATATATTCACAGCAAAGTGTGAAACATCTGGTTTTAGTGTGTGAGATGCTCAGCAACAAACATGGAACATA  
CCAGATCGATTACTTTGGGTTGCTGCAACAGTATATTGATGCTCTTTGGCACTTACATGAAAGTGAATAATGA  
AGGAGGAGAGTGTAAAGCTGAAGGCTTTTTAGAGGCTTCTCATTTGGATATGTGGAAATGAAATTTTTCATGT  
TATGTTGAATTTTCCAGATTGATCATCTTCCATCTTTGGATTTGTAAAGCAAAAGCTGAAGAAAGTATTTCAC  
ACAACACTATACATAACAAGATTAGGGCCCTACGTAATAGGCTAATTTGTACTGCTCTTAGAATGTAAGCGTTACG  
AAAAATAAATTTGGATATAGACAGTCCTTAAAAATCACACTGTAATATGAATATTGCTCACTTTAAACCTGTTTT  
TTTTTCATTTATGTTTATGTAATGTTTGTAAAAATAAATGCCAGGAATTTTCCATGTAAAAAATAA

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**FIGURE 665**

MDTPENVLQMLEAHMQSYKGNPLGEWERYIQWVEENFPENKEYLITLLEHLMKEFLDKKKYHNDPRFISYCLKF  
AEYNSDLHQFFEFLYNHGIGTLSSPLYIAWAGHLEAQGELQHASAVLQRGIQNAEPREFLQQQYRLFQTRLTET  
HLPQAQARTSEPLHNQVNLQMITSKSNPGNNMACISKNQGSSELGVISSACDKESNMERRVITISKSEYSVHSSL  
ASKVDVEQVVMYCKEKLIRGESEFSFEELRAQKYNQRRKHEQWVNEDRHYMKRKEANAFEEQLLKQKMDLHKKL  
HQVETSHEDLPASQERSEVNPARGPMSGVSGQELRAPCLPVTYQQTPVNMKEKNPREAPPVVPPLANAIASALVS  
PATSSQSIAPPVPLKAQTVTDSMFAVASKDAGCVNKSTHEFKPQSGAEIKEGCETHKVVANTSSFHHTPNTISLGMVQ  
ATPSKVQPSPTVHTKEALGFIMNMFQAPTLPDISDDKDEWQSLDQNEFAEQFQKNVRSSGAWGVNKIISLSS  
AFHFVEDGKNENYGLPQPKNKPTGARTFGERSVSRLP SKPKEEVP HAEFLDDSTVWGI RCNKT LAPSPKSPGDF  
TSAAQLASTPFFHKL PVE SVHILEDKENVVAKQCTQATLDSCEENMVVPSRDGKFSPIQEKSPKQALSSSHMYSASL  
LRLSQPAAGGVLTCEAELGVEACRLTDTDAIAEDPPDAIAGLQAEWMQMSSLGTVDAPNFIVGNPWDDKLIFKL  
LSGLSKPVSYPNTFEWQCKLPAIKPKTEFQLGSKLVYVHLLGEGAFQVYEATQGD LNDAKNKQFVLKVQKP  
ANPWEFYIGTQLMERLKPSMQHMFMKFYSAHLFQNGSVLVGELYSYGTLNAINLYKNTPEKVMPPQGLVISFAMR  
MLYIMEQVHDCEI IHGDIKPDNFI LGNGFLEQDDEDDL SAGLALIDLQGSIDMKLFPKGTIFTAKCETSGFQCVE  
MLSNKPWNYQIDYFGVAATVYCMFLGTYMKVKNEGGECKPEGLFRRLPHLDMWNEFFHVMLNIPDCHHLPDLDL  
RQKLKVFQQHYTNKIRALRNRLIVLLECKRSRK

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**FIGURE 666**

GCGCAGAAGCGGCGGGTGGCTTGTTGGTGCGGCCTCACCATACAGGAACAGGGCAGACGTTAGCGTGAGTG  
ATCACTCTCAATCCCGGGGACCTGGTGCCCTTAGTCTTTCAGGTGGAACGGTGTGCGACATGGGAAAGAAAACCA  
AGCGGACAGCTGACAGTTCTTCTTCAGAGGATGAGGAGGAGTATGTTGTGGAGAAGGTGCTAGACAGGCGCGTGG  
TTAAGGGACAAGTGGAATATCTACTGAAGTGGAAGGCTTTTCTGAGGAGCACATACTTGGGAACCTGAGAAAA  
ACTTGGATTGCCCTGAGCTAATTTCTGAATTTATGAAAAAGTATAAGAAGATGAAGGAGGGTGAAAAATAATAAAC  
CCAGGGAGAAGTCAGAAAGTAACAAGAGGAAATCCAATTTCTCAAACAGTGCCGATGACATCAAACTCTAAAAAA  
AGAGAGAGCAGAGCAATGATATCGCTCGGGGCTTTGAGAGAGGACTGGAACCAGAAAAGATCATTGGGGCAACAG  
ATTCTGTGGTGATTAAATGTTCTTAATGAAATGGAAAGACACAGATGAAGCTGACCTGGTCTTGCAAAAGAAG  
CTAATGTGAAATGTCCACAAATTTGTATAGCATTTTATGAAGAGAGACTGACATGGCATGCATATCCTGAGGATG  
CGGAAAAACAAAGAGAAAGAAACAGCAAGAGCTTAAAGGAGGGGATGGTCTCTGTCATTTCTTTGTACATAATA  
CATTCACTCCCTGCCTCCTCTCCTTCTACCCACCCCTTCTATCCTAAACACATCCATAAAAAATGTGCTTAT  
CACTGTGCTCCACAAAAA

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**FIGURE 667**

MGKKTkRTADSSSEDEEEYVVEKVLDRRVVKGOVEYLLKWKGFSEEHNTWEPEKNLDCPELISEFMKKYKKMKE  
GENNKPREKSES NKRSNFSNSADDIKSKKKREQSNDIARGFERGLEPEKIIGATDSCGOLMFLMKWKDTDEADL  
VLAKEANVKCPQIVIAFYERLTWHAYPEDAENKEKETAKS

CTGAAGCTTGCATGCTCGAGGTGCAGCCACGCGTCCGCGACGCGTGGGCGGACGCGTGGGTTTTCTCTTTCTT  
CCAGAAGGAGATTTAAACCATAGTAGAAGAATGGAGAAGCTATTAAGTGCCTTCTCTGTGGGCTGTGATTTTCA  
GAGGGGAATGCTAAGAGGTGATTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAATTTTGGCAG  
AGGAAGATCTTCTTCGGTGACCATCTTGAGTTAGCTCTAGGGAAGTGGAGGTTTCCATTGGAAATTCATAGC  
TTCTTCCAGGTCTAGTGTCTGCCCCACCTTCCAGTATCTCCTGATATGCAGCATGAATGA~~ATG~~AAATGGCAAGT  
TCCTGGCCTTCTCTCTGCTCACTTTTCGTGTCTGCCTCTTTTGCTTACAGTGTCTATGCCTCCTCAGCTCAGT  
TTTCTGTGCTTGGACCTCTGGGCCATCTCGGCATGCTGGGTGAAGACGCTGATCTGCCCTGTCACTCTCTTC  
CGACCATGAGTGCAGAGACCATGGAGCTGAAAGTGGTGAGTTCAGCCTAAAGGAGGTGGTGAACGTGTATGCAG  
ATGGAAGGAAGTGGGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAAGCTTCGATTCTCGGGGATGGCATCACTG  
CAGGGAAGGCTGCTCTCCGAATACACAACGCTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATG  
GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAAGTTGCAGCACTGGGTCTCTGATCTTCAAGTGTATGTGAAG  
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCAACCCAAATACAGTGAAGCA  
ACAACAAGGGAGAGACATCCCCAGCTGTGGGAAGCACCTGTGGTTCAGACAGGAGTGGCCCTGTATGCAGTAGCAG  
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGGTGTATCCTGTACCATCAGAAGTTCCCTCTCGGCCTGGAAA  
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCAGAGGTGGATCGCCGCCCTGGCAGCGACCC  
TGCCTGTCTTGTCTGTCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAAGACTCAGT  
TCAGAAGAAAAAGAGAGAGCAGAGTGTAGAGAAATGGCATGGAGACAATGAAGCAAGAACAAGACACAAGAG  
TGAAGCTCCTGGAGGAACATCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTCAAGCTATAAGT  
AATGGA~~AAAA~~AGGCCCTCTTCAAGCCTCGGAGTGTGATTCTGGATCCAAAACAGCAAAACCCCATCTCTCTGTGTT  
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCGAGGATCTGCCAGACAACCTGAGAGATTTAATTGGC  
ATTATGTGTTCTCGGCTGTGAGAGCTTCATATCAGGAGACATTACTCGGAGGTGGAGGTGAGGACAGGAAG  
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTTCT  
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGCACICTAAGTGAAGCCAGAACCAACCTGAAACTTCTTAAGC  
CCCCTAAGAAAGTGGGGTCTTCTCGGACTATGAGACTGGAGATATCTCATTTCAATAGCTGTGGATGGATCGC  
ATATTCACTTTTCTCGGAGCTCTCTTCTCTGAGGCTCTATATCTGTTTTCAGAATTTTACCTTGGAGCCCA  
CGGCCCTGAGTATTTGTCCAGGCTGA~~AAAA~~AAGAAGAGAGTTCTCTCAATCTGACCGAGTGCTGATCATTCCT  
AGAGACACCAAGTAACCCCGGCTTAGCTAACGAAAGTGGGAGCCTCAGGCTGAAGTAACTTTTCTCTGCTTCTC  
CCTGCCAGCTCAGAGCTGAGGGCTCCCCCTCCACAGCAACCAATCACAACCATAAAGCTACAAGCAGCAAGT  
AAGCACTTTACTGATACTCACTTCAATTTATTCATATGACAGTTGTTGAGTTTGGTACCATCTTTTCCCCCTTA  
TACAGATAAGGAAACTGGGTGCAAGAAAGTGAATTGACTACAAGTAGACATGACTAGTTAACAACACAGCTGG  
GACTTAAACAGCAATAACTCAATTAATGGAGAAGTAAAATGCTCTGAGTGCTGTGTTATGAGCTTTGGTGGAT  
GTCATCTCTTTAACTCTCGCAACACCTGTGCGGTAGTCTCATTTAGCAAGTATGGAAAGTTGAGGACGGGCAACA  
TTAAGCAACTTACATAACTCATGCAAGTAATTTCTGCAGTTGGGAGATGTTTCAAGTTCAGTCCCCGGCCCTATGGC  
CGTTCTTTTCCACCTGTGTTCTTCCCCCATAGGAAGAACCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC  
TCCAGGATAAGGATCACTGTAGGTGTGTGGAGTTGACACCTGTGAGCTCTCCAGCTGTGAGGATGTTGACAGC  
CTTAGACCCAGCAGCCCTTGGATTAGCTTTGAGAGTGTCTTGGTTGAGAGATAAAGCTCACGTCACCCACATGA  
CACGTGATTTGGAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCCAACAATGT  
GATAAGTGATCATGACGCGCAGGACCCAGCCTCTCTTCAATCAAGTTTCCAGGACAGCAAAATACCTAGAGATTT  
TCTGTGATATAGGAATTTGGATGAGGGAGCTAGAAGAAATACAGGGAATTTTTTTTTTTTTTAAGATGGAGTCT  
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCATCTCAGCTCCCTGCAACCTCCACCTCTCTGGGTCAAACA  
TTCTCTGCTCAGCCTCGGAGTATGGGAATATAGGTGCACGCCACCCACACCAACAAATTTTGTACTTTTA  
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTACCTCATGATCAACCCACCTCGGTCTC  
CCAAAGTGTCTGGATTACAGGCTTGAAGCCACCGGGTGACCGGCTTACAGGGATATTTTTTAATCCGGTATAGGACT  
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTTGGTGGATGTTAAACCAATATTCTTTCAACTGCTGCC  
TGCTAGGGA~~AAAA~~ACTACTCCTCATATCATATTATTTGCTCTCCACTGTATCCCTCTTACCTGGCATGTGCT  
TGTCAGGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAA~~AAAAAAAAAAAAAAAAAAAAAAAAAAAA~~



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**FIGURE 669**

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPSPGILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HVDVKGYKGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSTIRSS  
LLGLEKTASISIADPPFRSAQRWIAALARTLPVLLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ  
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEQDLPDNP  
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN  
LKLKPPKKVGVFLDYETGDISFYNAVDGSHHTFLDVSFSEALYPVFRILTLLEPTALSICPA

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**FIGURE 670**

CAAAATCCGTGCTCCTAGATTTGCAGGTTCTGATACTGTGGTTTCGAGCTACACTCGCCGCCCTGGGCAGACACTCGT  
CCAAACCACCTGGAGTGTGCTGGTGATCGCAGCCAGCCCTTCGCCCTCTCCATGAACCCGTAGCCTGGGGCAGGTTG  
CCAGGCCATGGCGCGGCCCTGTGAGCGACAGGACCCCGGCCCTCTGCTGCTGGGCGGCCCGGCCGGGACACCCCC  
TGGCGGGGGAGCGCTGCTTGGGTTGCCGAGCCTTCTGCAGGGGACCAGCAAGCCCAAGAGCCGGCCAGCTGTCT  
CCTGAAGGAAAAGGAGCGCAAGCGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCCTGGAGACTGCGGGCCC  
GGCGGATGCCCCGGCTGGGGCAGTGGTGGGCGGAGGGTCCCGCGGGGGCGCCCGGGCCGGTGCCCCCGCCGGG  
TCTGTTGGCGCCACTGCTGTGGGAGCGCACGCTGCCGTTCCGGCATGTGGAGTACGTAGACCTGGACGCTTCTCT  
GCTGGAGCACGGGCTCCCGCCAGCCCGCCGCCCGCCCGGTGGCCGCTCGCCGGAGCCGTCGCCCCGCGGGACGCC  
CGCACCCCTCCCCAGGGCCGGGTTCTGTGCGGCTCGGCTTCCCCCGCTCCTCTCCTGGGCACGCCCGCGCCGGG  
TGCCCTCGGGACCGCCACGGGCCACCGCGCAGGCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACAC  
CGTGGAGGTGTTGATGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCCTGGCCACGAGACCTT  
TGACCCCTCGAAGACATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCA  
GGTGCCGGAGGAGCAGAAGGATGAGAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCG  
TGACGCCCGCGGCTCAAGGAGAACCAGATATCGGTGCGGGCGGCCCTTCTGGAGAAGGAGAACGCCCTGCTGCG  
GCAGGAAGTTGTGGCCGTGCCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCGATACCAGGCCACGACCGG  
GGCCCTGTGAGGCTGCCCCACATCCCCACCTGGCAGGCGTCTCCTCCGCTTGCTGAGACTTACGCCCTGTTCCCT  
TCCTGCCCTGTGCCACGGGCCCGCCAGCTGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTATATTT  
TTAAGAAAAAGCGAGCTCCCCCTCTTGCGGGGGCGGGAGGGTTCTCTGTGTGTCCCCGGCACGTCAGGGACC  
CTATCCTCCACCGCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCC

**FIGURE 671**

MARPVSDRTAPILLGGPAGTPPGGGALLGLRSLQGTSKPKEPASCLLKEKERKAALPAATTPGPGLETAGPAD  
APAGAVVGGGSPRGRPGVPAPGLLAPLLWERTLPFGDVEYVDLDAFLLEHGLPPSPPPGGPSPEFSPARTPAP  
SPGPGSCGSASPRSSPGHAPARAALGTATGHRAGLTSRDTSPVDPDTVEVLMTFEPDPADLALSSIPGHETFD  
RRHRFSEEELKQPIMKKARKIQVPEEQKDEKYWSRRYKNNEAAKRSRDARRLKENQISVRAAFLEKENALLRQE  
VVAVRQELSHYRAVLSRYQAQHGAL

## FIGURE 672

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAAGTAGGGAATCTTGAGA  
ATAAAGATGAGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGAGAGTGGACAAGAAAAATGAT  
GCCACCACTCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCCTGTGTGCTGTAATGAATGTG  
GTCTTCATCACCATTTTAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATAACAATTGTCCAGGCCAATACACA  
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTGGCTACCAGAGGAAATGCTACTTT  
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCCAAATGCTTGTCTGAACATGGTGCTACTCTTGCTGCTCATT  
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTGGACTGAAAAGGAA  
CCTGGTCACCCATGGAAGTGGTCAAAATGGCAAAGAATTAAACAACCTGGTTCAACGTTACAGGGTCTGACAAGTGT  
GTTTTTCTGAAAAACACAGAGGTGAGCAGCATGGAATGTGAGAAGAATTATATCTGGATATGTAACAAACCTTAC  
AAATAAAGGAAACATGTTCACTTATTGACTATTATAGAATGGAACCTCAAGGAAATCTGTGTCAGTGGATGCTG  
CTCTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAATTTTATAGTGTCTTGGAATTTTCTTCCAAAC  
AGAACTATGAAAAAAGGAAGAAATTCAGGAAAACTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT  
CACAGGTTGACCAATAACCTGCCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCATTTATATATTT  
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATGTCTGAATGACTACCAACAGTGAGAGCCC  
TTCATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAACAAAGGAATTATGGCTG  
GTAACATAGGTTTTTAGTCTAATTGAATCCCTTAAACTCAGGAGCATTATATAATGGACAAATGCTTATGAAAC  
TAAGATTGTAAATATTTCTCTCTTTTTAGAGAAATTTGCCAATTACTTTGTTATTTTCCCCAAAAAGAAATGGG  
ATGATCGTGATTTATTTTTTTTACTTCTCAGCTGTAGACAGGTCCCTTTTCGATGGTACATATTTCTTTGCTTT  
ATAATCTTTTATACAGTGCTTACAGAGAAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT  
AGTGTGGAAAAATGTGCAATATGTGATGTGGCAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT  
AATACTAGTCTTATAATAGGTTTGTGACTTTCCTAAATCAATCTATTACGTGCAATACCTTCAATACCTTCATTTA  
AAATATTTTATGTGCAATAAAATGTATTTGTGTTGTTTGTGTTTGTGTTTCAGTACAATTATAAGCTGTTTTATATAT  
GTGAAATAAAGTAGAATAAACACAAAAA

**FIGURE 673**

MSSENCFAENSSLHPESGOENDATSPHFSTRHEGSFQVPVLCVAMNVVFIITILIIALIALSVGQYNCPGQYTFS  
MPSDSHVSSCEDWVG YQRKCYFISTVKRSWTS AQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG  
HPWKWSNGKEFNW FNV TGS DKCVFLK NTEVSSMECEKNLYWICNKP YK

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**FIGURE 674A**

CCGGGGTCCCTTTACCCAAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT  
 GCATTGGTGGGAGGCTTTTATATGCCAGAGAACCCTGAGTGTGCCCTGACATGACAAGGAGCCGCTGCTGTTA  
 GGACTACCGCAGACTCCCGGAAATATGTTGGTGGAGTCCAGTCTTTTTCGGCTGGAGGGCCCAATGGGATC  
 ATTAGAAGCCAGTCTTTGGGGTTTCAGCGGCTCCAGGAAAGGCGATCCAGGTGTAACTCTTCAITGAAAAAT  
 TCCTCCGCTCTCAAGAAGCCTCAGGCCAACTGAAGAAAATGCACAATTTAGGCCACAAAACACAATCCCCC  
 AAAGAGGCTCAGCTTAAAGGGTGAAGAAGTCTACAGGGCTTGA AAAATGGACTGTAGTAATATCTGGAGGTT  
 CACAGCAGGAGTGCACAAGTTGACAGCTCAGTTAAAGATATGAAAAGAACTCTCGCTCGGCTGTGAGTAT  
 GACCTAGACAAGCAAAATTAACAATTAAGAGATACATGAGACGCTTGGAGTTTCATATAAGTAAGGTAGATGAA  
 CTCTATGAAGCTTATTGTATCCAGCGACGCTCCAGGATGGTGGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC  
 CTGCGCAGAAAGCTGCGCGGAGAGTCTGACAGAGTCAATCGGAGCTTCAAGAGGATACACAGAGAATATGTGC  
 ACCATTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCCTCATCAAGATGAAGGCTTGGCTGGCTTTGACCG  
 CTCTGCTCGGAGATCAATATGAAATTTTCATGAAGTATGGCCGCGAGCGGTGA AAATGAAAGGCAAAATAGAA  
 GTAAATGGCAAGCAGAGCTGGGATGGGAGAAGAAACAGTTTTCGCCCCGTAGTGTGGGTTTCATCTCCATCAAG  
 GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCTGACCTGTGAGACCAAAGAGCTGTTGTGA  
 GCGCCAGCTCAGGTAGTGGCTGTGCACATCAATGACCTTGGTACCATCAAACTGAACTTGGAAATCACTTGCTAT  
 CCATTTGACATGGAGGACATGACCGCATCTCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC  
 ATGTACAGCCAGGGTACCCCGGAAACGCCACCTTCAAGAGCACTCCTTCTTTAGGTGGCTGCATCTTCCCCA  
 GACAAGCCGAGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTCTTTGCGCAAGCTGCACCGAGCGGCTCC  
 TTCAGTGACCTGCCCTCCCTCAGGCGGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC  
 TTGAAAATGGAAGGCAGCGCGAGGAGAAAATGCCACTGTGCTCAGCTTCAGTGACCTGCCCAACGGGAGCTGC  
 GCGCTCACCTCCCACTCAACAGGCTCCCTTCCAACCTCAACAATCCAGAAATTCATCATCCCTCCGGGAGTTT  
 AACCTCAGCAGCTTGGCCTCCCAAGATGAGGGTATGGATGACACCAAGCTCAGCATCTTCCAGGAACCTCCCTGGGA  
 GAAGGCCAAGAGCCAAAGTCACCTGAAGGAGGAAGACCCAGAGGAGCCAGAAAACCTGCCTCGGCCCCATCT  
 GTAGTGTGCCCGCAGCTCTCAGGTGCTGGGGCTGAGCACCTGTCTTGTAGAAATGATGTGCGAGAGCACTT  
 CTGCAAGAGTCTGAGGAGGCTCTGAGCTCAAGCCTGTGGAACCTGGAACCTTCGGAAGGAACATCACAAAGCAG  
 CTGGTCAAGAGGCTCACATCTGAGGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGTTCTGTTGGTGA  
 GAATCTGAAGGCTCGAGATCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAAATGGGCTTTTACTTGCATTAGAA  
 CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTTCAAAATGC  
 AAGCCAGCAGTAAGCCGACAGGCTTCCAGTTTAAAGTCTCAGAGTGAAGAGTCTTTAGAAAGCTTTTGATTTC  
 CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGGTTTGTAAATGTTGGCGGAGGTGCTGACTCAGTA  
 TTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTGCGTTACCCAGAGAAGCCAGGGGGGCTCTCAGTGAAGCG  
 CTCACTGAAGACACAGGAGTTGGGACCAAGTGTGGCAGGAAGTCTCTCCCACTGACACAGGCAACGAGAGCGTG  
 GACATCACCATCGTCAGGCACCTCCAGTACTGCACCACCACTCGTCAGCAAAATTTGTTTCTCAAGCAAAACCCCA  
 TTGTGGCAAGAAGTCTCTTAGAGAAGCTTTTAGGCAGATCCAAGTGATGGAGAACTCGCAGCTGTGAGTAT  
 GAGAACATAGGAATATCAGTTCTGTTGGGAAGCAATCAGAGAATTCACAAAAGAGCTGCTTTTGTGCTAATTC  
 TGGACCAAGTGCTGACGCCCTGTTGGTGCTACACAGCCAGCGGACAGAGTGAAGGACGCTGGAGGGCAGC  
 TTTGCCAGAAGTGTCAACAAAGATATCCAGGACTTGACAGCCAGTGTTTTCGAACCTGGTGCTCCCAAAATCTTG  
 GACAGGCTGAGGCTCTGCTTTCTCTCAGGCTGTCTCGGAAGTCGTCAGTGTTTTCCAGTATTACAGTTACTTC  
 ACCAGCCAGCGGCTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCATGTTTCAGCTGTG  
 CAATCACTAAGAGATGA AAAACTGCTCAAAACCATGAGTGTGCTGCTCCAGCAACCTCTCTGCGCCACGAGGAA  
 GTACTCAGGACTCTGGCTCTGCTATTAAACCAGAGGAGACAACGAAGTATAGCGAGGCTGTGACGCTTTACTTGGCA  
 CGAGCCTCCAAAATCAGCAATTCAGGGAAGAGGCTTGTCTATTACTGTGAAGCACTCAACAAAGCAAAACCTC  
 CAGCTCCAGAAGCAGCTTGGCTGGCTCTGAAAATCTTGAAGCTACTGAAGCAATTAAGCTCTGGTCAACTTG  
 TGTCAATCTGATACTGAAGAAATCAGAAATGTGGCTCAGAAACCTCTTGTCTCTGGGAGAAGATGGCGGCTG  
 CGATATGAACAAATTGGCAAAATTTCTCGAGACTGTGTTAAAGTCGGAGGCTGCTCATGGAATGAAGTTGGCACA  
 GCTTTTAAATACAGATTAACTGCTCAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGTGCTGGTT  
 TGGGCTGGAATTTGTTAGAGCCTGAGAGACACGACAACTGAAATAAAAATATGAGGCCAGGTGCAAGTGGCTCATG  
 CCTGTAATCCCACTACTTTGGAGGCCCAACGCAGGAGAATTGCTTAAGCCAGGAGGTTCAAGACCAACCTGGGC

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**FIGURE 674B**

AACATAGCAAGGCCCTGTCTCTACAAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA  
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCAGAAAGATTACGGCTGCAGTGAGCCATAATTGCCCA  
CTGCACCTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAACAACAACAATAAAAAACATG  
TTATAGAAAGAATTACAGAGTCTCGTTTCACAGTACCTATCTACTTTTCCTTTGGCCAATATAGAATAGGGCTATG  
GTATAATTCAAAATAGATTACATCGTCGATTGTGTCTAATAATCTCAGTGAAGAGTCCATCTTATCTTAATATG  
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT  
TCGCAAAACATCATATGCCTTGCAGTTTTCTCGGTCTGTCTCAGGGTTGAGTAGTCCCTTAGCTACCTAAC  
TTTACTTTCAATACAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCTGCAAGACCTGGCAAAATGACCCA  
TTATGAGAGTTTTAGATGTTTTAATTTTTATGTGCTCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG  
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCACCTCCAGCCCATGTGACAGAGGAATGAGAGCCAGCTCAAA  
AAAAAAAACAAAAAATCCCATATAATTATTGTTTCTTTTCCCATCCTGAAATTTCCCAATCATGTTTCCA  
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAATCAAA  
GCTTATGCTTTTTTTTTAATTAATGAGAGCTATTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA  
GACAAATCAAAACCAAAAGCTGTAGATTCAAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG  
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAATAATGACCGTGGGATTAGAA  
AGAAGGACATCCTGAGGGGTGGTTACTGCCCCAGGGAAATCACTCACTGGTAGGATTCCTTGGCCAAATAGTTT  
AAACATCAGGTCCCATTTATGCTTCAGTATCAGAGATGCAAGTTCATTAAAGCAAAGTACAAGACCATTAGTAGC  
TCTTATTAATAATATCTTTCTTCTCTAAAGAGTGACAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT  
GAGTGTAATTTAAACTGTGGAATATCAACTGTACTATGGACGTGTTGTATCATTTAGATGTCAATTTAAATATT  
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTTCATTTCAAAGTGCAAAATGTTTGCCAGGCTTCTGGCAAT  
GGTTCTTTCAACTGTGAACCTTATAGTGTACATATCTGTATATTATAAAATATTATATATATTCATACATCCTTCA  
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT  
TTTTATAGAAAGTCAAAACAGATGTTACAGGATTTTGTGTTTGGTTTGTCAATTTTTATTTTTATTTTGTACT  
ATTGCATGAGTAATTAATCCAGATCTTTGTATTCACTTCTGTATTTATGTTTGGTTGAGGGGTGCTTTTATG  
TGTGTGCATTTGTATTCAATGTATCTTCAGTCATGTAAGTTAAATAAAATATTTTTGAATTACTAGC

**FIGURE 675**

MLVGSQSFSPPGGPNGIIRSQSFAFGSLQERRSRCNSFIENSSALKKPPQAKLKKMHNLGHKNNNPPKEPQPKRVE  
EVYRALKNGLDEYLEVHQTELDKLTAKLKDMKRNSRLGVLYDLKQIKTIERYMRLEFHIKVDDELYEAYCIQR  
RLQDGASKMKQAFATSPASKAARESLEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI  
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELGKLATHILVGSVTCETKELFAARPOVVAVD  
INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAALQRRMSMYSQGITPETPTFKDHSFFRWLHPSPDKPRRLSVL  
SALQDTFFAKLHRSRSFSDLPSLRSPKAVLELYSNLPDDIFENGKAAEEKMPLSLFSFSDLPNGDCALTSHTSGS  
PSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG  
AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGESEGCRSFL  
DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMLDDILKCKPAVSRSSSSLSLTVESALESFDFLNTSDFDEE  
EDGDEVNCVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ  
YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLAADVSDENIGNISSVVEAIPFEHKKLSLSLFWTKCCSPVG  
VYHSPADRVMKLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLSSSSLSSEVVTVFQYYSYFTSHGVSDLE  
SYLSQLARQVSMVQTLQSLRDEKLQTMDSDLAPSNLLAQQEVLRTLALLLTREDNEVSEAVTLYLAAASKNQHFR  
EKALLYCEALTKTNLQKQAACALALKILEATESIKMLVTLQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP  
RDCVKVGGRRHGETEVATAF



CCCGCCTCTTCTCCTCTCTTCTTCTTCTTCTGCTTTTCGCCGCGCACTCCGCCGCCATGAGCAGCGCCGCGTCACC  
GACTTCTTCGCCGCGCCGCGCCCGGGCCCCCGCATCGCGCCGCCAAGCTGGCCTGCGCCACCCAGCCCC  
GCCAGGCCGCACTCCGCGCCCGGGCTCCGCTACCACTGGCAGCGCGCAAGCGCCCGCCGCGCCGCGCCCG  
GGACGCGCAGCGCCAGGCCACCGGCCCGCAGGAGACTGCGGCTGTCGGTGGACGAGGTTTCCAGCCCCAGTACC  
CCCGAGGCCCCAGACATCCAGCCTGCCCTTCTCGGGCCAGAAGATAAAGAAATCCACCCCGGCAGCAGGTGAG  
CCGCCCCACTGACATCCGCGCAGGACAGGACACCACTCTCTGAGCTTGCCTCATGCTGCAACGGGCGCGGGAG  
CTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCAAGGATGCTGGGAGTCTTGCAACCCAGAGGCCGAGGGC  
CGCCTGAGGAGCCATGTGGCGAGAAGCGCCCGCTTACCAGCGCTTCCATGCCCTGGCCAGCCCGCGCTGCCG  
GGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGAGATGTTCCGCAAGCATGGACACCATCGTGGGCGATGCTC  
CACAAACGCTCCGAGACGCCACCTTTGCCAAGGTCAGCGGGCGCTCCAGGACATGATCGTAGGCGTTTGTAG  
GAGCGCAATGTTGGCCAGATCAAACCGTGTACCGGCTCCTACCGCTTCCGCCAGGAGCGCATGTGCCCCACC  
TTCAGGATGGCGCCAGGAGGTGAGATTACCAGCTCACCATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCA  
GCCCCCCAGCTCACGGCTCGCGCTCCTCGAGCGACGGCAGATCTTCAGCCAGAAGCTGGTGGAGCAGCTCAAG  
GAGCACCACAAGGCCCTTCTGGCTCCTTGAGCCCCGCCATGTTGGTGGCGGAGGACAGCTGACCCGCTGGCAC  
CCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCCGGCCGCGCTGCCCCAGCCACCGCCACGGAGAAGCTC  
ACCACTGCTCAGGAGGTGCTGGCCCGGGCCGCCAACCTGATTTCACCCAGGATGGAGAAGGCCCTTGAGTCAATTG  
GCCCTGCGCTCTGCTGCGCCAGCAGCCCCGGGTCTCCAGGCCAGCACTGCGGCTACCCACCAGCCACCCCG  
CCTGCAAGCTCTCCAGTGACTCTGAAGGGGGTGTCCAGGATCTGCTGGAGCGGATCCGAGCCACGGAGGACAG  
AAGCAGCTGGCACAGATGACCGGTGCCGGAGCAGGAGCAGCGGTGCGAGCGCTAGAACGGTGCCTGAGCTG  
GCCCGCGTGCTGCGGAGCGTCTTTGTGTCGAACGCAAGCCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATG  
GTGGGCGAGTGTGTACTATCATGAGCCCTGGGGAAATGGAGAAGCACCTGTGCTCTCTCCGAGCTGCTGCCG  
GACTGGCTCAGCCTCCACCGCATCCGACCCGACACCTACGTCAAGCTGGACAAGGCCGCGGACCTGGCCCCACATC  
ACTGCACGCTGGCCCCACGACACGTGCTGAGGAGGGGCTGTGAGCCTGGGGGCCACTGTGGACAGAGCTGGGC  
TTCAGAAGCTCGCTGGCTGGGCCCCACGACATTTTCTTTATGAACATGATACACTTTGGCCTTCCCTTCCCCA  
CGCCCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGCTGCACAGCCCGAGGGTCTCTGCTGCGGGCGGTGGGC  
CCCTTCATGGGGCTCACCTGGTGGATTACATTAAACCGGTTTCTGTGGGCACCTTTTGCTCTGCTGCTGGTGG  
GAAGGGGAAGCCAGATCCAGCACCCCTTGGGGGGCCATCGGAGTGTGGCTGGGGGTGAAGGGGGCTCTGTGGCAA  
TATGGGGTTGGGTAGTGTGGGTGGCAGGCCATCCCCCTCTAATCTTGAACCTCTGAATATGGGACCTCCACACAG  
AAAGGGTGACTTTTGTCAATGAAGAAAGACTGGGGTGGGTGTGGTGGCTCAGCGCTGAACCCAGCACTTTGGGA  
GGCCAAGGTGGCGAGATCAGGAGGTCAAGAGATCGAGACCATCTGGCGAACATGGTGAAACCCCATCTCTACTA  
AAAAACAAAAAATTAGCGGGGTGTGGTGGTGGGCACCTGTGCTCCAGCTACTAGGAGGCTGAGGCAGGAGAA  
TGGTGTGAACCCAGGAGCAGCTTGCAGTGAGCGAAGATCGCACCCTCGACCACTCCAGCCTGGGTGACAG  
AGCGAGACTCCGTCTCAAAAAAAAAAATTTCAAGACTGGAGAGGTGATCCTGAATTGTCCAGCTACGCCCCATGT  
CATCACAGGGCCTTCATGACAGGGCCAGAGCCAGCCAGCTTTGAAGACGCGGCCCTGCCCGACACAGGCAGCT  
GGAGAAGCTGGGCAGGACAAGTAGGACATCCCTGGAGCCTCAGAAGGGAGCTGGCCTTCGCCACACCTTGACTT  
CAGTATTTCTGACCTCCTAACTCTAATAAAGTCATGCTTACAGCCACTAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 677**

MEQRRVTDFFARRRPGPPRIAPPKLACRTSPARPALRAPASATSGSRKRARPPAAPGRDQARPPARRRLRLSVD  
EVSSPSTPEAPDIPACPSPGQKIKKSTPAAGQPPHLTSAQDQDTISELASCLQRARELGARVRALKASAQDAGES  
CTPEAEGRPPEPCGEKAPAYQRFHALAQPLPGLVLPYKYQVLAEMFRSMDTIVGMLHNRSETPTFAKVQRGVQD  
MMRRRFEERNVGQIKTVYPASYRFRQERSVPTFKDGARRSDYQLTIEPLLEQEADGAAPQLTASRLLRRIQFSQ  
KLVEHVKEHHKAFLASLSPAMVVPEDQLTRWHPRFNVDEVPDIEPAALPQPPATEKLTTAQEVLARARNLISPRM  
EKALSQALRSAAPSSPGSPRALPATPPATPPAASPSALKGVSQDLLERIRAKEAQKQLAQMTRCPEQEQRQR  
LERLPELARVLRSVFVSEKRPALSMEVACARMVGSCTIMSPGEMEKHLLLLSELLPDWLSLHRIRTDITYVKLDK  
AADLAHITARLAHQTRAEGL

## FIGURE 678

GCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCTTCCCTCCCTCGCCTGGCCT  
CGCCGTCTCTCCCCGACGCCGACCGGAACCTATGTGATCCCGGAAGTTCGGGGCCCTTTGCTGTGTGGGATAAA  
CAGTAATGCGCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCACGGCGG  
CAGCAGCCTCCCCACCCCGATCCCCACAGTCACCGCCCGTCCCTGGGGGCGGGCGGAGGGGGCGCGGCAGCG  
ACGGCAGCGGCGGGCGGTGGACTAAACAGGTCACCTGCAGGTATTTTATGTCATGGGGTTTGTAAAGGAAGGAGACA  
ACTGTCGCTACTCGCATGACCTCTCTGCAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACTGTA  
TTTTATGGAGACCGCTGCAGATATGAACATAGCAAACATTGAAACAGGAAGAAGCAACTGCTACAGAGCTAACTA  
CAAAGTCATCCCTTGCTGCTTCTCAAGTCTCTCATCGATAGTTGGACCACCTTGTGAAATGAATACAGGCGAAC  
GTGAGTCAAGAAATTCAAACCTTTGCAACTGTAGGAGCAGGTTTCAGAGGACTGGGTGAATGCTATTGAGTTTGTTT  
CTGGGCAACCTTACTGTGGCCGTA CTGCGCCTTCTGCCTGAAGCAACCCCTGCAGGGCTCAGTGACCAAGGAAG  
AATCAGAGAAAGAGCAAACCGCGTGGAGACAAAGAAGCAGCTGTGCCCTATGCTGCAGTGGGAGAGTGCCGAT  
ACGGGGAGAACTGTGTGTATCTCCACGGGAGATTCTTGTGACATGTGTGGGCTGCAGGTCTGCATCCAATGGATG  
CTGCCAGAGATCGCAGCATATCAAATCGTGCTATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGGCGTCA  
GCAGCAAGGACATGGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAAACCCAGTGAGCGCCGCTTCG  
GGATCCTCTCCAACTGCAACCACCTACTGTCTCAAGTGCATTGCAAGTGGAGGAGTGCTAAGCAATTTGAGA  
GCAAGATCATAAAGTGAAGACTCCTCCCCAGTCTTCATTGTGCTTTCTTTTGGGGAAGAATTTAGTAACCTTGT  
GCCAACTTTCAACCAGATGGACCGCATTTAAATGCATGCAATTTATCTTGAACTGGGATATTCTAATGGGGATT  
TCTTCTTTGTATTTCAGCTAGCTTCTAGGTTAGTTGGTCTATCTACTTTTATTGAAATGAGGAAACCCCTGTGTAT  
CAGTTAGAATCTTCGTGCTTTTCTGAGGAGATTGTGTTAATGGATTATTAGCCAGTTTAGGCTCAGTGAACAA  
ACTGATCTAGCTCTGAATGTATGTTTCCTGACGTTTTACATTTCCACTTTCCTATTCCATTCTAATAGCTAGCCA  
ACAAATCCACCATCCTTTAAAGATTGTTCTCATAACTGAACAAAAACCATATAATCTAAACAGAGCAAAGCTACAA  
GAAATAAATTTATTTAAACGAAAAAAAAAAAAA

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**FIGURE 679**

MAEAA TP GTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC  
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTKSSLAASSSLSSIVGPLVEMNTGERE  
SRNSNFATVGAGSEWDVNAIEFVPGQPYCGR TAPSC TEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG  
ENCVYLHGDS CDMGLQVLHFM DAAQRSQH IKSCIEAHEKDMELSF AVSSKDMVCGICMEVVYEKANPSERRFGI  
LSNCNHTYCLKCIRKWSAKQFESKIIK

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**FIGURE 680**

GGCTCGAGTGCCTGGCGGGCTCTGGCTTCGCGCTCGCCCTGCTCCGGCTTCGCCCGAGCTCCGCGCCCGGG  
GCAACCAAGCCCCAGCGAAGCCGACAGCTCCGGGTGCCAGGACGGGGGCCATGCGCTGCCGAGGGAGGAG  
GAAGAGGAAGCCGGCAGGAGGCGGAGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCCGGTG  
ACGCTTGGGCGAGCTCGGGCGAGGTGGACCGGCTGGTGGCCAGATCGGCGAGACGCTGCAGCTGGACGCGCGCAG  
GACAGCCCGGCTCGCGTGCAGCCCCCGGGGTGCCGCTGCGGGCCCCGGGGCCCCGGCTGGCTGCGGCGGTGCCG  
GCGGACAAGGCCCGGGCCCCGGCGGTGCCGCTGCTGCTGCGGCCGCTTCGCTGAGACGGTGGGCCCCGGCGCCC  
TCTGGGGCCCTGCCTGCGCTGCGCCCTAGGGGACCGCGGCCGCTGCGCGGACGCGCTGCGCCCTACTGCTGGCGGAG  
GTCGCGCGAGGCCCCAGCGCGCTGCCGGGCGCTGCCGGCGAGGATGGCTCAGGGACGCGGTACCTCCCGCCG  
TTGACGACGCGCGATGGACCAAGCCGGGGCACGCGCGCGGACGACGACCCGCATCGGCTCCTCCAGCAGCTC  
GTGCTCTCGGGAACCTCATCAAGGAAGCCGTGCGGAGACTCCAACGAGCCGTCGCCGCGGTTGCAGCCACGGGC  
CCCCGAAGCGCCCTTGGGCCCCGGGGAGGCCGAGCGGACCTGACCGCATTTGCCCTGCAGCCCTCAGGCTCCTTG  
CTCTGACGCGAGGCCCTCCTGGAGGAGGAAGTGGAGGCCGCTGCGTAGACCAACAGCGTCCAGTTCTACTAACTC  
TGAGCTGAAGCCGACGTGCGCAGCCTGGGAGCGACCACTTTGGCTGCGGGGAGGCGCGTGGGGAGAGATCTCAAC  
CAGAGAAGTTACCAGCGCGCGGAGGCCGTGCGGAGAAAACCTTAAGCGTGGAGAAATGATGCGCCAGGGTGCTTC  
CGTGGGCGATGAGAATTTCCCGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT  
TGCATCGACTTGTAACCTCACTTAGCCCTTGGGGCGTCTGAGCTTGGATTGTTTAAAGGAGGCTCAGGGGTAGG  
AATCGCGATGGCTTTATAACAATACTTTGAAAACCTAACGACACGCATACATTTCTTATTCTGGTGGAGGAGCT  
TAGTAAGTGGTGCTACAATTTGCTGTGCAAGAAATTCAGAGGGGAGAAGAATGTAAGAATTTGGTGGTGGGTGG  
CTTGGCATTGCCCTTTTCCACCAGATTTCGGTGGCTGGTGAAGGTGGGAGATGTGAACCTCAATTAAGGGACTG  
GAGAGAGGTGAAGAATTTGCAAGTGGGAGATTGGATTGAAATGTGGACTTGTAAATGACTTGACCTTGCCATC  
TGTGTTCAAGGTACGGTTTGCTGTGGGTTTCTGGGAGAGCTTACTCACCCCGGAGTCTTTCTTCTCTTGGT  
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGGAGTCTCCCGAGGACACAACAGGCAGAGAGGACGTGT  
AGGGAGAGTTCTTTCTGTTTCTGTGCTTTCTTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG  
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTGTCTCCAGCTGAGCTTTCTATTCCAC  
CCTTTCTGGTGCTATAGGAATGCATGAGAGACCTTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA  
TGGGCCTCGGCTCGGCGGCTCCTCACCCTCACAATTTATTCTCTCTCCGCTGCCAGCCCTCTTTTGTGCTG  
AAACCGGTTTTAAATGTGACTCTCCAGAGAAGAAGCCGCTGGCTGTATGAACTTGACGGCGCTTTGTGAAG  
TGCCACCCCAAACTTTAAGGTAGCTAAACCAATTTTAAAGATTCAAATGGCTTGTTCATCTCCAGATGTAGC  
TATTGATGTACACTTCGCAACGGAGTGTCTGAAATTGTGGTGGTCTGATTATAGGATTTTCAT

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**FIGURE 681**

MPCRREEEEEAGEEAEIEEEEDDSFLLLQQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG  
PLAAAVPADKARPPAVPLLLPPSAETVGPAPSGALRCALGDRGRVGRRAAPYCVAEVAAGPSALPGPCRRLR  
DAVTSRRLQQRRTQAGARAGDDDPHRLQLVLVLSGNLIKEAVRRLQRAVAAVAATGPASAPGPGGGRSGPDRIA  
LQPSGSL

## FIGURE 682

ATGGCTGTGTGAACGACTGTCATAGGCCACACCGGAAGCTTGAGACGCTGGGGAGCGGCATGTTGGACCATAGGGT  
AGACACAGGTCTGCTCTCTCTACAGCCAGGAGGACCGAGAGCGAGGCATGGAGCTGCCCTTGGAGGGCTATGTGCC  
GAGGGCTTGGAGCTTGGCTGCCCTCGGCCAGAGAGCCCGGCCAGAGGAAGAGGTGCCAACAACACGACCC  
GATGGGGACTCCAGCTCTGACTACGTGAACAACACCTCTGAGGAGGAGGACTATGACGAGGGCCCTCTCTGAGGAG  
GAGGAGGGCATCCACTACTATCTCCGCTATGCGCTTGAGGACGACAGCTACCTAGAGGGCATGGACTGCAACGGG  
GAGGATACCTGGGCCCCAGAGTGACATGCAACCTTGAGGACATGATGATGCCATGAGCGCTGGAGGATGGACGGAC  
TCGGCGGGCCGCACCCCCACGGCCACGAGGCTGAAGGCAGCGAGGACTACCCAGACGGCCAACTGCCCTTCCG  
GAGGATGAGCCCTCCGCTCTTGGGCCCATGACCCAGGAAGAAGATGGTCACTACTGTGCCAGCAAGAAGGGCTG  
CAGGACTACTACCCAGAGGAGGCCAACGGGAACACGGCCGCTCCCTTACCGCTAGCGCTGGGGATGGGGAT  
CTGGAGGACACGAGGAGGACATGTACCAAGATCTGTGGCAGAGATCAAGATGAGCTTGAGACTGACCAAGCATACCC  
AGCGCCCATGAGGCGAGCCCGGATGGGCTGAGCCAGGGCTGAGGACTCTGTAGAGGCTGCCACCATT  
AAGGCCAGCTGACGCCCCAGGAGGACGAGGCGGAGCCCAAGTCGTGAACCTCTCCGAGGCCAAGGACCC  
GGAGACCCCCAGAGAGGCTTCAAGCCCAAGACGAGGCCCCAGAAGAGGCTGAAGTGGCCCCACGAGCAGGT  
TGCAATGTCTGGAGCAGCCAAAGGAGACGCGCTCTGATCTCAATGAGCTGTGACATAAACAACATTTCA  
AAAAAATAAAAGGTGGTCATATTTCCAAGTTTGGTGGCTGTTCCAGGGCCCTGCGAACCATAAAACCTCATCGAC  
GGGATCATTTTGTCTGCAATTAAGTCTGGGGTCCACCAGCTGCTATCAAGACGAGACCCCTTCAAAAACATCAGA  
ATGATGCAAGCGCAGGAGGCTGACCGGGTCAAGGAGGATGCAAAAGGCTCTAAGATCAAGAAAAAAGCAAT  
TCTGAGGGGATGCCAGACGCTGACGGAAGTGGACTCTTCAATTTCCACCAGAGGATCAAGGTTTAAATGCA  
CAGACGAGAAACCATGATGAGCAGCGCTGCGTCACTTCTACATCGGCCAGATTTGGGAACATTTGATGT  
CTGATGGCCAGACGCGCATGCGCCGGTACGCTTCTAGGACTGATCTGAGACACGCCCGCCGGCCAGGAAGC  
AAGAAGCAGTATAAGATGATCTGCCATGTGTTGAGTCGGAGGATGCCAGCTCATCGGCCAGTCTATCGCCAG  
GCCTTCAGCTGGCCCTACCAAGGATTTCTCGGAGCCATGCTCATCAACCCGGAAGCTTGGCGAGAAGATAC  
AGGCATCATCTAACCCACAGGAGATGTACAAGCAGCAGCTTCTCACTTCTCAAATCTGGAGAACTGCAAGGAG  
CTGACGCTGGAGAAGCACAAGGGCCAGATCTGCGGCTGTGGTGTGGTGAAGTCGGGCTGGGGCTCTCATCTGCC  
ACGCTGATCTGGGCCAACATGATGATGATGCGGCCGCGGCTGCCGCTCGGGGAAGCTGAGCATCTGGGACAGCAT  
ATGTTCCATCAATGGACACGCTGTGGGGCTGCCCTCGCCACTGGCAGGCATCAATAAGGCTTGAAGAAC  
CAGACACAGGTGAAGCTTAACATGTGACGTGTCCCCGGTACCCAGTGGCTCTTATCAAGCGGCCAGACCTCAAG  
TACCAGCTGGGCTTACGCTGCGAATGGAATTTCTGCAAGCTCATGAGAGGGGCAATTGCTGAGCGAGGGGG  
TCCTGTTGGGCCACGCGATCATCGAGATAACGGGACGAGCGTGTGGCCACAGCCCAAGAGATAGTCCAA  
GCTCTGTCCAACCTCGGTGGAGAGATCCACATGAAGACAGTATGCCCGCCGATGTCTGAGGCTCTCAGCGGTGAG  
GAGACCCCGCTGTACATCTAGGCCACCCAGCTGGCCACGACGAGCAACGGGCGAGGGCCGCCGGGCCCA  
GAGGAGCTGGAGAGCGGGCCGAGACTTGACCCCGACGCCACGCCAGCCAGCGACGTGGCTCCCCAAGGGT  
GTGCCCTCACCAACCCACTGATTTTTTTCATTTTCCGAAAAGGGGTATGCTTTATCAAGGAGAGTCAAGAA  
CAATTTTGTGTTAAAGCGTCAAGTATTTTGGCCAGTGTGGAAGTGTCTCTCCCTGCAAGACGCGAGGTT  
TGCTCTCGGTGATCTGCGTGGTGGAGTGTGTCTTTCTCCCTGAAAGCTGTGCGGAGCGAACTGGCGCTCC  
GAGGACGCGGCTCCGGGCGAGGCGAGCGCTCACCCCTGCCCTCGGCCCGCTGGCTGGGAGCTGTGGGCTCT  
GTGGGCGCCCAAGTGGTCCAAACAGCTGCTCTTGCCATCTGACGATGACGAGGACAGGGCAGCTGGCTCCAGG  
ACACGACTTGAATGAAAGTTTGGGGACATGTGATTGATTGATTGATTGATTGATTAATAAAGGATGATGGCCACA  
ACATGAAAAATCCATATTTATTATAGTGCTATTATTAATGTTGGACTTTATTTTGGAGGCTTTTTCAGGCT  
TCTAGGTTTTCATATGTGACTAATTAGCACACCTGCTCTCCGCTGTCTCTCTGGGACCCCTCCACCCGGC  
TGCATACCCGGCCAGGGCTCCACAGACAGAAGGAXGCCACAGTGTCTGCCCCCTCTTTAAATCGATCTACAC  
ACATCTCACGCAATCTGCGACCCGAGGGAACGAAACCCCACTAGAAAACCGCGACTTTGGCCGCACTAAAGCAG  
CAGCGCTGAGTGACAGACCCCTTGGCAGCTGGGCGAGTGGCCCTGAGCAGTATGGCATGTGTGTAGATCAAG  
TCGGATCTAGTCAAGCTCGGTTCTATAGCAGTCCATGTAATCTGACGTCACTGTGCTCGAAGTCTCTTTTGT  
GCCAGGCGCTTGAAGAATCACTGTGACTTAAAGAGCTTACCACGAGTAATAAGCTTTAGGATGCTGTGAT  
TCGAGGAGTGGCTGTGTTGATCGACTACCCGATGGAAGACTTCGGCATATCACTAATAAACCTGAAGTCGT  
GATGACC

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**FIGURE 683**

MAHRKLESVSGMLDHRVRPGVPVPHSQEPESDMELPLEGYVPEGLELAALRPESPAPEEQECHNHSPDGDSSSD  
YVNNTSEEDYDEGLPEEEEGITYYIRYCPEDDSYLEGMDCNGEYYLAHSAHPVDTDECHEAVEEWTD SAGPHPH  
GHEAEGSQDYPDGQLPIPEDEPSVLEAHDQEEDGHYCASKEGYQDYYPEEANGNTGASPYLRRRGDGLDQDEED  
IDQIVAEIKMSLSMTSITSASEASPEHGPEPGPEDSVEACPPIKASCSPSRHEARPKSLNLLPEAKHPGDPQGRF  
KPKTRTPEERLKWPHQVCNGLEQPRKQQRSDLNQFVDNNNIPKTKKVASFP SLVAVPGPCEPKNLIDGIIFAAN  
YLGSTQLLSERNPSKNIRMMQAQEA VSRVKRMQKAAIKKKANSEGDAQTLTEVDLFISTQRIKVLNADTQETMM  
DHALRTISYIADIGNIVVLMARRRMPRSASQDCIETTPGAQEGKKQYKMICHVFESEDAQLIAQSIGQAFSVAYQ  
EFLRANGINPEDLSQKEYSDIINTQEMYNDL IHFSNSSENCKELQLEKHKGEILGVVVVESGWGSILPTVILANM  
MNGGPAARSGKLSIGDQIMSINGTSLVGLPLATCQGIKGLKNQTQVKLNIVSCPPVTTVLIKRPDLKYQLGFSV  
QNGIICSLMRGGIAERGGVRVGHRIIEINGQSVVATAHEKIVQALNSVGEIHMKTMPAAMFRLLTGQETPLYI



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**FIGURE 684**

TTTTTGCAACCAACATGGTTCTATTAAAACTCTCTTTGACTATGGCATTCAAGGACAGCAATACAATCTTTTT  
TTTTTTAAACAAAGCAACTAATATAAAAAATCTGCAAATGCCATATATTCATATCTAGGCTATTCTTCTCATATAGG  
CATGTCATTAGATAGACTTCTTTCTATTCTTTCCTGAGGTATTTTTTGTGGTTTACTTTTATTGTACTGCTGG  
ATGCATTATTTTGATCATCCTTTCCTAAAATGATTAAAGACCTGCAAATAATTTATTGCATAGGACACTATT  
GATGACACATAGAATGGGAGCTGCAAGTATGTGGCATTGGAACAAGCCTTACAAATATTGCATTTTAAGAATACA  
CACATTTTTACAGTTTGTCTCTTTTAAAAAATTTGAAGTTATAGC

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FIGURE 685A

CCCTACTCTATTTCAGATATTCTCCAGATTCTCTAAAGATTAGAGATCATTTTCTCATTCTCCTAGGAGTACTCACTTC  
AGGAAGCAACCAGATAAAAGAGAGGTGCAACGGAAGCCAGAACATTCTCCTGGAATTCACCTGTTTCGCAGT  
TTCTCGAGGAATCAGCATTTTCAGTCAATCCGGCCCGGAGCAGTCACTCTGGTGGAGGCTGATTGGCTGGGCAGGA  
ACAGCGCCGGGGCTGGGCTGAGCACAGCGCTTCGCTCTCTTTGGCCACAGGAAGCCTGAGCTCATTTCGATAGGCG  
GCTCTTCCAAGCTCAAAGAAGCAGAGGCCGCTGTTTCGTTTTCCTTAGGCTCTTCCACTAAAGTCGGAGTATCTTC  
TTCCAAGATTTTCAGCTCTTGGTGGCCGTTCCAAGGAGCGCGAGGTCGGGATCGATCTTTGAAGGGGACCGCAATGG  
AGGAGCAAGAAGAAGAACTTTTAAACTGAAACATAAAAGTGAAGAAAGATAAAGAAGAAAGAAACCAACTGT  
CAGTGTATTTTCAATGTTTCGCTATTCAAATTGGCTTGACAAGTTGTATATGGTGGTGGGAACCTTTGGCTGCCAT  
CATCCATGGGGCTGGACTTCCTCTCATGATGCTGGTGTTTGGAGAAATGACAGATATCTTTGCAAAATGCAGGAAA  
TTTGAAGATCTGAGTGTCAACACTCACTAATAGAAGTGATATCAATGATACAGGGTCTTCATGAATCTGGAGGA  
AGACATGACCAGGATGCGCTATTATTACAGTGGAAATGGTGTGGGGTCTGGTGTGCTGTACATTCAGGTTTC  
ATTTTGGTGCTGGCAGCTGGAAGACAAAACACAAAATTAGAAAACAGTTTTTTCATGCTATAATTGCGACAGGA  
GATAGGCTGGTTTGTATGTCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAGATTAAATGA  
AGGAATTTGGTGACAAAATTCGGAATGTTCTTTCAGTCAATGGCAACATTTTTCAGTGGGTTTATAGTAGGATTAC  
ACGTGGTTGGAAGCTAAACCTTTGATTTTGGCCATCAGTCTGCTTTCGAGTGTACGCTGCTGTCTGGGCAAA  
GATACTATCTTCACTTATTCATGATAAAGAATCTTTAGCGTATGCAAAAGCTGGAGCAGTAGCTGAAGAGGCTTTGGC  
AGCAATTTAGAACTGTGATTGCAATTTGGAGGACAAAAGAAAGAACTTGAAGGTGACAACAAAATTTAGAGAAGC  
TAAAGAATTTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCTGCTTTCCTGCTGATCTATGCATC  
TTATGCTCTGGCCCTTCTGGTATGGGACCACCTTGGTCTCTCAGGGGAATATTCTATTGGACAAGTACTCACTGT  
ATTTTCTGTATTAATTTGGGGCTTTTAGTGTGGACAGGCATCTCCAAGCATTGAAGCATTGCAAAATGCAAGAGG  
AGCAGCTTATGAAATCTTCAAGATAATTGATAAAGCCAAAGTATTGACAGCTATTGCAAGAGTGGGCACAAACC  
AGATAATATTAAGGAAATTTGGAATTCAGAAATGTTCACTTCAGTTACCCATCTCGAAAAGAAAGTTAAGATCTT  
GAAGGGCTTGAACCTGAAGGTGCGAGTGGGCAGACGGTGGCCCTGGTTGGAACAGTGCTGTGGGAAGAGCAC  
AACAGTCCAGCTGATGCGAGGGCTCTATGACCCACAGAGGGATGGTCAGTGTGATGGACAGGATATTAGGAC  
CATAAATGTAAGGTTTCTACGGGAAATCATTGGTGTGGTGAAGTACGGAACCTGTATGTTTGGCCACAGCATAGC  
TGAAAACATTTCGCTATGGCCGTGAAAATGTCACCATGGATGAGATTGAGAAAGCTGTCAAGGAAGCCAATGCCTA  
TGACTTTATCATGAACTGCCTCATAAATTTGACACCTGGTTGGAGAGAGAGGGGCCAGTTGAGTGGTGGGCA  
GAAGCAGAGGATCGCCATTGACAGTGCCTTGGTTGCGAACCCCAAGATCCTCCTGCTGGATGAGGCCACGTCAGC  
CTTGGACAGAAAGCGAAGCATGGTTTCAGGTGGCTCTGGATAAGGCCAGAAAGCTCGGACCACCATTTGTGAT  
AGCTCATCGTTTGTCTACAGTTTCGTAATGCTGACGTCATCGCTGGTTTCGATGATGGAGTCATTGTGGAGAAAGG  
AAATCATGATGAACCTCATGAAGAGAAAGGCATTTACTTCAAACCTGTGCAATGCGACAGCAGGAAATGAAGT  
TGAATTAGAAAATTCAGCTGATGAATCCAAAAGTGAAATTTGATGCTTGGAAATGCTTCAAATGATTCAAAGTC  
CAGTCTAATAAGAAAAGATCAACTCGTAGGAGTGTCCGTGGATCACAGCCCAAGACAGAAAGCTTAGTACCAA  
AGGGCTCTGGATGAAGATTAACCTCCAGTTTTCCTTTTGGAGGATTATGAAGCTAAATTTAACTGAATGGCCTTA  
TTTGTGTGGTGTGATTTTGGTGCATTAATAATGGAGGCTGCAACAGCATTTGCAATAATTTTCAAGAT  
TATAGGGGTTTTCACAGAATTTGATGATCTGAAACAAAACGACAGAAATGTAACCTGTTTTCACATTGTTTCT  
AGCCCTTGGAAATTTTCTTTATTACATTTTCTTTCAGGGTTTCACATTTGGCCAAAGCTGGAGAGATCCCTCAC  
CAAGCGCTCCGATACATGTTTTCGATCCATGCTCGACAGAGTGTGAGTTGGTGTGATGACCTTAAAGAACAC  
CACTGGAGCATTGACTACCAGGCTCGCCAATGATGCTGCTCAAGTTAAAGGGGCTATAGTTCCAGGCTTGCTGT  
AATTACCAGAAATATAGCAAACTTGGGACAGGAATAATTATATCCTCATCTATGTTGGCAACTAACACTGTT  
ACTCTTAGCAATTTGACCACTCATTGCAATAGCAGGAGTTTGTGAAATGAAGAAATGTTGTCTGGACAGCACTGAA  
AGATAAGAAAAGAACTAGAAGGTGCTGGGAAGATCGCTACTGAAGCAATGAAGAACTCTCCGAACCCGTTGTTTCTTT  
GACTCAGGAGCAGAAGTTTGAACATATGTATGCTCAGAGTTTGCAGGTACCATCAGAACTCTTTGAGGAAGAAG  
ACACATCTTTGGAATTACATTTTCTTCCACCAGGCAATGATGATTTTTCCTATGCTGGAATGTTTCCGGTTTGG  
AGCCTACTTGGTGGCACATAAACTCATGAGCTTTGAGGATGTTCTGTTAGTATTTTCAGCTGTTCTTGTGTGTC  
CATGGCCGTGGGGCAAGTCAGTTCATTGCTCCTGACTATGCCAAAGCCAAAATATCAGCAGGCCACATCATCT  
GATCATTGAAAAAACCCCTTTGATTGACAGTACAGCACGGAAGGCCATATGCCGAACACATTGGAAGGAAATGT  
CACATTTGGTGAAGTTGTATTCACTATCCCAACCCGACCGGACATCCGAGTGCTTCAGGGAAGTGAAGGCTGGAGGT

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**FIGURE 685B**

GAAGAAGGGCCAGACGCTGGCTCTGGTGGGCAGCAGTGGCTGTGGGAAGAGCACAGTGGTCCAGCTCCTGGAGCG  
GTTCTACGACCCCTTGGCAGGGAAAGTGCTGCTTGATGGCAAAGAAAATAAGCGACTGAATGTTCACTGGCTCCG  
AGCACACCTGGGCATCGTGTCCCAGGAGCCCATCCTGTTGACTGCAGCATTGCTGAGAACATTGCCTATGGAGA  
CAACAGCCGGTGGTGTCAAGGAAGAGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTC  
ACTGCCTAATAAATATAGCACTAAAGTAGGAGACAAAGGAACTCAGCTCTCTGGTGGCCAGAAACAACGCATTGC  
CATAGCTCGTGCCCTTGTTAGACAGCCTCATATTTGCTTTTGGATGAAGCCACGTGAGCTCTGGATACAGAAAG  
TGAAAAGGTTGTCCAAGAAGCCCTGGACAAAGCCAGAGAAGGCCCGCACCTGCATTGTGATTGCTCACCGCCTGTC  
CACCATCCAGAATGCAGACTTAATAGTGGTGTTCAGAATGGCAGAGTCAAGGAGCATGGCAGCATCAGCAGCT  
GCTGGCACAGAAAGGCATCTATTTTCAATGGTCAGTGTCCAGGCTGGAACAAGCGCCAGTGAAGTCTGACTGT  
ATGAGATGTTAAATACTTTTAAATATTTGTTAGATATGACATTTATTCAAAGTTAAAAGCAAACACTTACAGAA  
TTATGAAGAGGTATCTGTTTAAACATTTCTCAGTCAAGTTCAGAGTCTTCAGAGACTTCGTAATTAAGGAACAG  
AGTGAGAGACATCATCAAGTGGAGAGAAATCATAGTTTAAACTGCATTATAAATTTTATAACAGAATTAAGTAG  
ATTTTAAAGATAAAATGTGTAATTTTGTTTATATTTCCCATTTGGAGTGTAACTGACTGCCTTGCTAAAAGAT  
TATAGAAGTAGCAAAAGTATTGAAATGTTGCATAAAGTGTCTATAATAAACTAAACITTCATGTG

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**FIGURE 686**

MDLEGDRNGGAKKNFFKLNKSEKDKKEKKPTVSVFSMFYRSNWLDKLYMVVGTAAIIHGAGLPLMLLVFGEM  
TDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSIGIGAGLVAAIYQVSFWCLAAGRQIHKIRKQ  
FFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFTTGFIVGFTRGWKLTLVILAI SPVL  
GLSAAVWAKILSSFTDKELLAYAKAGAVAEVLAAIRTVIAFGGQKKELERYNKNEEAKRIGIKKAITANISIG  
AAFLLIYASYALAFWYGTTLVLVSGEYSIGQVLTVFSVLIGAFSVGQASPSIEAFANARGAAAYEIFKIDNKPSID  
SYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVLVGNSSGCGKSTTVQLMQRLYDPTEGMV  
SVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGE  
RGAQLSGGQKQRIAIARALVRNPKILLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGF  
DDGVIVEKGNHDELMKEKGIYFKLVMTQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRSVRGSQ  
AQDRKLSTKEALDESIPVSWRIMKLNLTWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQN  
SNLFSLLFLALGIIISFITFLLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVK  
GAIGSR LAVITQNIANLGTGIIISFIYGWQLTLLLLAI VPIIAIAGVVMKMLSGQALKDKKELEGAGKIATEAI  
ENFRIVVSLTQEQKFEHMYAQS LQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLL  
VFSAVVFGAMAVGQVSSFPDYAKAKISAAHIIMIIEKTP LIDSYSTEGLMPTNLEGNVTFGEVVFNYPTRPDIP  
VLQGLSLEVKKGQTLALVGSSGCGKSTTVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRHLGIVSQEPI LFDCS  
IAENIAYGDNRSRVVSQEEIVRAAKEANIHFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDE  
ATSALDTESEKVVQEALDKAREGRTCVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAG  
TKRQ

## FIGURE 687

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCGGAGCGCCCCGGAGCCCCCGCGCTCCC  
GCCCGCGGCGTCCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCCACCCCTCGCGCTGGCCCCCTCTG  
TAGGATGGTAGCACACAACCAAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA  
ACCTTCCTCCTCTTCCTCCTCCTCGCCCCGCGGCCCGCGCGCCCCGCGGCCGTGCCCCGCGGTCCCAGCCCCGGC  
CCCCGGCGACACGCACCTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCCAGCGCGCTCCT  
GGACGCTCGCGATTCTACTGGGGGCCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG  
CACCTTCCTGGTGCGCGACAGCCGCCAGCGGAACTGCTTTTTCGCCCTTAGCGTGAAGATGGCTTCGGGACCCAC  
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCCGAGAGCTTCGACTGCCTCTTCGA  
GCTGCTGGAGCACTACGTGGCGGGCGCCGCCCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCTGCGGCCGT  
GCAGGAGCTGTGCCGCCAGCGCATCGTGCCACCGTGGGCCGCGAGAACTGGCTCGCATCCCCCTCAACCCCGT  
CCTCCGCACTACCTGAGCTCCTTCCTTCCAGATTGACCGGCAGCGCCCCGCGTGCACGCAGCATTAACTGG  
GATGCCGTGTTATTTTGTATTACTTGCCCTGGAACCATGTGGGTACCTCCCCGGCCTGGGTTGGAGGGAGCGGA  
TGGGTGTAGGGGCGAGGCGCTCCCCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCACCTCTTGAGGGGG  
TCCTCCCCCTCCTGGTGCTCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT  
GAACTCGACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC  
TCTGGCTTTATTTTCTGCTGTGCAGAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACITTTATTA  
TGAAAGTTTTTTTTT

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**FIGURE 688**

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSPAAPARPRPCPAVPAPAPGDIHFRIFRSHADYRRITRASALLD  
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQNCFFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL  
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQIVATVGRENLARIPLNPVLRDYLSSFFPQI

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**FIGURE 689**

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC  
GCCGCGGGCGTCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCCACCCCTCCGGCTGGCCCCCTTCTG  
TAGG**ATGG**TAGCACACAACCAAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA  
ACCTTCTCTCTTCTCTCTCTCGCCCCGGGCCCCCGCGCGCCCCGGGCCGTGCCCCGCGGTCCCGGCCCGGC  
CCCCGGCGACACGCACCTTCCGCACATTCCGTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT  
GGACGCCGTGCGGATTCTACTGGGGCCCCGTAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCCGTGGG  
CACCTTCTGTGGTGCAGCACAGCCGCCAGCGGAAGTGTCTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC  
GAGCATCCGCGTGCACCTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCCGAGAGCTTCGACTGCCCTCTTCGA  
GCTGCTGGAGCACTACGTGGCGGGCGCCGCGCGCATGCTGGGGGCCCGCTGCGCCAGCGCCGCGTGGCGCCGT  
GCAGGAGCTGTGCCGCCAGCGCATCGTGCCACCGTGGGCCGCGAGAACTGGCTCGCATCCCCCTCAACCCCGT  
CCTCCGCGACTACCTGAGCTCCTTCCCTTCCAGATT**TGA**CCGGCAGCGCCCCGCCGTGCACGCAGCATTAAGTGG  
GATGCCGTGTTATTTTGTATTACTTGCCCTGGAACCATGTGGGTACCTCCCCGGCCTGGGTTGAGGGGAGCGGA  
TGGGTGTAGGGGCGAGGGCCCTCCCGCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGG  
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTGTAGCAGCTTAAGTGTATCTGGAGCCAGGACCT  
GAAGTCGACCTCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACAGGGGTTGGGGGAGGGTC  
TCTGGCTTTATTTTCTGCTGTGCAGAACTCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA  
TGAAAGTTTTTTTTT

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**FIGURE 690**

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTRSHADYRRITRASALLD  
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL  
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQIVATVGRENLARIPLNPVLRDYLSSFPFQI



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**FIGURE 691A**

**ATG**GCTGGCGGAGCCTGGGGCCGCTGGCCTGTTACTTTGGAGTTCCTGAAGAAGGAGGAGCTGAAGGAGTTCACG  
 CTTCTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGC  
 ATGGAGGTGGCCTCGTACTGGTGGCTCAGTATGGGGAGCAGCGGGCCTGGGACCTAGCCCTCCATCTACCTGGGAG  
 CAGATGGGGCTGAGTCACTGTGCGCCCAAGCCAGGAAGGGCGAGGCCACTCTCCCTCATCTCCCTACAGCCCA  
 AGTGAACCCCACTGGGGTCTCCAGCCAAACCACTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCG  
 GCGGGGTGCACCCAGGGCTCAGAGAAGAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAA  
 ATCTCTGCCTCACTCCTTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCAACCAAC  
 GCCCCACATCCACAGCAGTCTGGGGAGCTGGGGATCCCCACTCAGCCAGCCTAGCACCCAGAGAGCAGGAG  
 GCTCCTGGGACCAATGGCCTCTGGATGAACGTGAGGAATTTACTACACAGAAATCAGAGAAGAGAGAGAGAG  
 AAAACAGAGAAGGACAGCCCAATGGCGACGGTGGTAGGAACGCCCCACAGGCCGACACCAAGCTACAGCCC  
 CACCACCACCATGGGAGCCTTCTGTGAGAGAGACCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAAAC  
 CAAAAATTCACACAGCTGCTACTTCTACAAAGACCTCACCCAGAAGCAAGATCCCTGGTCAAGAGAAGCTGG  
 CCTGATTATGTGGAGGAGAACTGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCAGGCCCTGGATACCCAA  
 GAACTCTGCATAGTCATACTGAGGGGGCTGCTGGAATTGGGAAGTCAACATGTGCCAGGACAGGTGAAGGAAGCC  
 TGGGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATGTCTTCTACTCTCAGTGCAGAGGCTGGCCAGTGCC  
 AAGGTGGTGAGTCTCGCTGAGCTCATCGGAAAGATGGGACAGCCACTCCGGCTCCCATAGACAGATCCTGTCT  
 AGGCCAGAGCGGCTGCTCTTCACTCTCATCTGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGAGTTCTGAG  
 CTCTGCTGCACTGGAGCCACGCCAGCGCGGATGCACTGCTGGGCAGTTTGGTGGGAAACATACTACTTCCC  
 GAGGCATCTTCTGTATCAGGCTCGGACCACAGCTCTGCAGAACCTCATTCCCTTCTTTGGAGCAGGCACGTGG  
 GTAGAGGTCTCGGGTCTCTGAGTCCAGCAGGAAGGAATATTCTACAGATATTTACAGATGAAGGCAAGCA  
 ATTAGAGCCTTTAGGTTGGTCAAATCAACAAGAGCTCTGGGCCCTGTGCTCTTGCGCCTGGGTGCTCTGGCTG  
 GCCTGCACTTGCTGATCGACAGATGAAGCGGAAGGAAAACTCAGCTGACTTCCAAGACCACACAAACCTCT  
 TGTCTACATTACCTTGCCAGGCTCTCCAAGCTCAGCCATTTGGGACCCAGCTCAGAGACCTCTGCTCTTGCT  
 GCTGAGGCACTTCGCAAAAAAGACCCCTTTTACGCTCCAGATGACCTCAGGAAGATGGGTTAGATGGGGCCATC  
 ATCTCCACCTTCTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTCACTCTGT  
 TTCCAAGAGTCTTTTGCAGCAATGCTCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAACACTTCTAATTGCACT  
 ATAGATTTGGAAAAGACGCTAGAAACATATGGAATACATGGCCTGTTTGGGGCATCAACACACGCTTTCCATTG  
 GGCTGTTAAAGTGATGAGGGGGAGAGAGATGGAGAACATCTTCACTGCGCGCTGTCTCAGGGGAGGAACCTG  
 ATGCAGTGGGTCCCGCTCTGCACTGCTGCTGTCAGCCACACTCTCTGGAGCTCCGCTCAGTGTGTGACGAGACT  
 CGGAACAAAACGTTCTGTACACAAGTGATGGCCATTTCGAAGAAATGGGCATGTGTGAGAAACAGACATGGAG  
 CTCTTAGTGTGCACTTTCTGCATTAAATCAGTCCGCCACGTGAAGAAGCTCAGCTGATTGAGGGCGAGGCAGC  
 AGATCAACATGGAGCCCAAGCTGTGATGCTTACGTTGGGTGCCGTTCCAGTGAGCTCATTGGCAGATTCTCT  
 TTCTCCGTCTCAAGGTACACAGAACTGGAAGGAGCTGAGACTAAGTGGAAACTCGCTGAGCCACTCTGCAGTG  
 AAGAGTCTTTGTAAGACCTGAGACGCCCTCGCTGCCCTCTGGAGACCTGCGGCTGGCTGGCTGAGGCTCACA  
 GCTGAGGACTGCAAGGACCTTGCCTTTGGGCTGAGAGCAACACAGACCTGACCGCTGGACCTGAGCTTCAAT  
 GTGCTCAGGATGCTTGGAGCCAAACACTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGAC  
 CTGGTCAGCTGTGGCCTACAGCTGACTGCTGCCAGGACTGGCCTCTGTGCTAGTGACGCCCAAGCTGAAG  
 GAGCTAGACTGCGACCAACAACCTGGATGACGTTGGCTGCGACTGCTCTGTGAGGGGCTCAGGCATCTGCTCC  
 TGAACCTATACGCTTGGGCTGGACAGACAACTCTGAGTGATGAGATGAGGACGGAAGCTGAGGGCCCTGGAG  
 CAGGAGAAACCTCAAGCTGCTCATCTTCAAGCAGACGGAACCAAGCTGTGATGACCCCTACTGAGGGCCTTGGAG  
 GGAGAGATGAGTAATAGCACATCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCT  
 CAGGCTAACTCAAACCTCTGGAGCTGAGCAAGATCTTCCCAATTGCTGAGATTGACAGGGAAGCTCCCCAGAG  
 GTAGTACCGGTGGAACCTTGTGCGTGGCTTCTCTGCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACT  
 GACGATGACTTCTGGGGCCCCACGGGGCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTT  
 CACTTCCCTGTAGCTGGCTCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTT  
 GAGATTGAATCTGTGTGGGACAGTTCTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGGACGGCT  
 CTGCTGGACATCAAGGCTGAGGCTGGAGCTGTGGAAGCTGTGCACCTCCCTCATTGTGGCTCTCAAGGGGGC  
 CATGTGGACACATCCCTGTCCAATGGCCCACTTTAAAGAGGAGGGGATGCTCTGGAGAAGCAGCCAGGGTG

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**FIGURE 691B**

GAGCTGCATCACATAGTTCTGAAAAACCCAGCTTCTCCCCCTGGGAGTCTCTGAAAAATGATCCATAATGCC  
CTGCGCTTCATTCCCGTCACCTCTGTGGTGTGGCTTTACCACCGCGTCCATCTGAGGAAGTCACTTCCACCTC  
TACCTGATCCCAAGTGACTGTCTCATTGGAAGGCCATAGATGATCTAGAAATGAAATTCAGTTTGTGCGAATC  
CACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGCTGTACACTGTGTCTGGGTCTGGTTCAGGGATGCTG  
GAAATACTCCCCAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTCTCGGAGTTCTACGTT  
GGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCCTTGGTG  
AAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCCTCCAGCCCGCATAGCCGTACCTTCACCTCTGGATGCC  
CCGCAGTTGCTGCACCTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCGGTGGAGGTTGTCTTG  
GACAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGTCTGGCTGAGAACACGAGGCCACGCCAG  
ATGCGGAAGCTGTTGAGCTTGAGCCAGTCTGGGACCGGAAGTGCAAAGATGGACTCTACCAAGCCCTGAAGGAG  
ACCCATCCTCACCTCATTATGGAACCTCTGGGAGAAGGGCAGCAAAAAGGGACTCTCTGCCACTCAGCAGCTGAAGT  
ATCAACACCAGCCCTTGACCCTTGAGTCTTGCTTGGCTGACCCTTCTTTGGGTCTCAGTTTCTTTCTCTGCAA  
ACAAGTTGCCATCTGGTTTGGCTTCCAGCACTAAAGTAATGGAACCTTTGATGATGCCTTTGCTGGGCATTATGTG  
TCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAATGTCCATCTGGAGCT  
GGCAAGACCCCTGCAGACCTCATAGACCTCATCTGGTGGCCACAGCAGCCAAGCCTAGAGCCCTCCGGATCCCA  
TCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTACAGGGTGAGCCCCAAATTT  
GGGGTTACGCGTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAA  
AGTGGAAGGAAGTTTATTAGAAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTAGCAGGCTTTCAGTT  
TTTACCAGAAAACCCCTATAAATTAAAAATTTTTTACTTAAATTTAAGAAATTAATAAATAACAAAAAGAAAAA  
TGAAATAAAGGAATAAGAAGTTACCTACTCCAAAAA

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**FIGURE 692**

MAGGAWRLACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGMGEVASYLVAQYGEQRAWDLALHTWE  
QMGLRSLCAQAQEGAGHSPSPFYSPSEPHLGSPSQPTSTAVLMPWIHELPAAGCTQGSERRVLRQLPDTSGRRWRE  
ISASLLYQALPSSPDHESPSQESNAPTSTAVLGSWGSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIRERERE  
KSEKGRPPWAADVGTTPQAHTSLQPHHHHPWEPSSVRESLCSTWPKNEDFNQKFTQLLLLRPHPRSQDPLVKRSW  
PDYVEENRGHLIEIRDLFPGGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGOLYGRDFQHVFYFSCRELAQS  
KVVSLAELIGKDGATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSSELCHWSQPQPADALLGSLGKTILP  
EASFLLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNNELWALCLVPVWSWL  
ACTCLMQMKRKEKLTLSKTTTTLCLHYLAQALQAQPLGPQLRDLCSLAAEGIWQKKTLSFPDDLRRKHGLDGA  
ISTFLKMGILQEHPIPLSYSFILHCFQEFFAAMS YVLEDEKGRGKHSNCI IDLEKTLEAYGIHGLFGASTTRFLL  
GLLSDGEREMENIFHCRLSQGRNLMQWVPSLQLLQPHSLESLLHCLYETRNTKFTLTQVMAHFEEMGMCVETDME  
LLVCTFCIKFSRHVKKQLIEGRQHRSTWSPTMVVLFWRWVPVTDAYWQLLFSVLKVTRNLKELDLSGNSLSHSAV  
KSLCKTLRRPRCLLETLRLAGCGLTAEDCKDLAFGLRANQTLTELDSLFSNVLTDAKAKHLCQRLRQPSCKLQRLQ  
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGVRLLCGLRHPACKLIRLGLDQTTLSDEMRQELRALE  
QEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLLKRQRLGSERAASHVAQANLKLDDVSKIFPIAEIAEESSE  
VVPVELLCVPSPASQGDHLTKPLGTDDDFWGP TGVPATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV  
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHFKEEGMLLEKPARV  
ELHHIVLENPSFSPGLVLLKMIHNALRFIPVTSVVLLYHRVHPEEVTFHLYLIPSDCSIRKAIDDLEMKFQFVRI  
HKPPPLTPLYMGCRTYVSGSGSMLEILPKELELCYRSPGEDQLFSEFYVGHLSGSGIRLQVKKKDETIVWEALV  
KPGDLMPATTLLIPARIAVPSPLDAPQLLHFVDQYREQLIARVTSVEVVLDKLHGQVLSQEYQYERVLAEINTRPSQ  
MRKFLSLSQSWDRCKDGLYQALKETHPHLIMELWEKSGSKGLPLSL

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**FIGURE 693**

CGCGGCGGCGCGGAGCTCGGGCGGCCGTGGAGGAACTCAGCCTCGGCCGAGGAGGCCCGGGAGCGGAGCCGCC  
GGGAGTCGCGCAACAGGTTTCCTTCTCCATCCGTGCGCCCACAGGGGACGCGCGCCCTGCGGGAGAGGGGCTTC  
TCGGTTCCGCACTCTCGCTCCAGTCCAGGCAAAATGAAAGACCGGCTAGCAGAACTTCTGGACTTGTCCAAGCAA  
TATGACCAGCAGTTCAGACGCGGGACGATGAGTTTGACTCGCCCCACGAGGACATCGTGTTGAGACGGACCAC  
ATCCTGGAGTCCCTGTACCGAGACATCCGGGACATTAGGATGAAAACCAGCTGCTGGTGGCCGACGTGAAGCGG  
CTGGGAAAGCAGAACGCCGCTTCTCACGTCCATGCGGCGCCTCAGCAGCATCAAGCGCGACACCAACTCCATC  
GCCAAGGCTTCAGGGCCCGGGCGAGGTATCCACTGCAAGCTGCGCGCCATGAAGGAGCTGAGCGAGGCGGCT  
GAGGCCAGCACGCGCCGCACTCGGCAGTGGCGCGCATTCGCGGGCGCAGTACAACGCGCTACCCCTACCTTC  
CAGCGGCCATGCACTACTACAACGAGCGAGATGAAGCAGCGCACAAGTGAAGATCCGCATCCAGCGCCAG  
CTGGAGATCATGGGCAAGGAAGTCTCGGGCGACAGATCGAGGACATGTTGAGCAGGGTAAGTGGGACGTGTTT  
TCCGAGAACTTGCTGGCCGACGTGAAGGGCCCGGGCCGCCACAACGAGATCGAGAGCCGCCACCGCGAACTGC  
TGCCTGGAGAGCCCATCCGCGACGTACACGAGCTCTTCTTGAGATGGCGGTGCTGGTGGAGAAGCAGGCC  
GACACCTGAACGTATCGAGCTCAACGTACAAAAGACGGTCGACTACACCGGCCAGGCCAAGGCGCAGGTGCGG  
AAGCCGTGCACTACGAGGAGAAGAACCCCTGCCGACCCCTCTGCTGCTTCTGCTGTCCCTGCCTCAAGTAGCAG  
GCCGGCCCGGGCCGCCACCGCCATCCAGACCATGGAGCGCGCTGGGAAGGACGCACCAAAGCCGGGAGCTCTG  
CCCTGACGGGAGTTGCCCAACCCCTTCCGGAACCTCAGTCTTTAGAAAAGAAACGCCAGGTTCAAGAATTGCAAA  
CCAGCCTGTGCTTGGAAAGATGGTTAGTTGATACCGTCCGATGATTTCTCAGTAAAGATAGATTTCCACCTCGT  
CCGAA

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**FIGURE 694**

MKDRLAELLDLSKQYDQQFPDGDDEFDSPHEDIVFETDHILESLYRDIRDIQDENQLLVADVRLGKQNRFLTS  
MRRSSIKRDTNSIAKAFRARGEVIHCKLRAMKELSEAAEAQHGPSAVARISRAQYNALTLTFQAMHDYNQAE  
MKQRDNCKIRIQRQLEIMGKEVSGDQIEDMFEQGGKWDVFSENLLADVKGKRGPTTRSRAATANCCAWRAAIRDVH  
ELFLQMAVLVEKQADTLNVIELNVQKTVDTYGAKAQVRKAVQYEEKNPCRTLCCFCCPCLK

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**FIGURE 695**

AGTTCCTCCGACATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACT  
ACGAGTCCCTTCAAACCTGCCAAAAAGAAGGATGAAGCCAAAATTGCCAAGCCTGTCTCGCTGCTTGAGAAAAGCGG  
CCCCCAGTGGTGCCAAAGGCAAACCTGCAGGCTCATCTCGTAGCTCAAACCTAACCTGCCGAAATCAGGCCGAGG  
AGGAGCTCATCAAAGCCGAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGA  
ACAGCCGCGTAGGTTTCTATGTCAACACGTTCCAGAGCATCGCGGGCTGGAGGAAAACTTCCACAAGGAGATGA  
GCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCGGCTGGAGAAGCAACACGGGAGCAACACCTTCACGGTCA  
AGGCCCAGCCCAGTGACAACGCGCCTGCAAAAAGGGAACAAGAGCCCTTCGCTCCAGATGGCTCCCTTGCGCCCA  
CCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCCACCTCCCCAAGTCCC  
CATCTAGCTCCGAAAAGGCCACCAGTCCCTCCGCCCTCCCAAACACACCCCGTCCAAGGAAGTCAAGCAGGAGC  
AGATCCTCAGCCTGTTTGAGGACACGTTTGCCTGAGATCAGCGTGACCAACCCCTCCAGTTTGAGGCCCCGG  
GGCCTTTCGAGAGCAGGCCAGTCTGCTGGACCTGGACTTTGACCCCTCCCGCCCGTGACGAGCCCTGTGAAGG  
CACCACGCCCCCTGTGTCAGTCAATTCATGGGACCTCTGGGAGCCACAGAGAGTCCAGCCGGCAGCCTGCCTT  
CCGGGGAGCCAGCGCTGCCGAGGGCACCTTTGCTGTGCTCTGGCCCAGCCAGACGGCCGAGCCGGGGCTGCC  
AACCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAGACGGCGG  
CAAGTGAAGCAGCCTCCAGCTCTCTTCTGCTGCTGCTGGTGGAGACCTCCCAAGCACTGTGAATGGCACCGTGG  
AGGGCGGCAGTGGGGCCGGGCGCTTGAGCTGCCCCAGGTTTCATGTTCAAGGTACAGGCCAGCACGACTACA  
CGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGCTGGTGATCCCTTCCAGAACCTGAAG  
AGCAGGATGAAGGCTGGCTCATGGCGTGAAGGAGAGCGACTGGAACACAGCACAAAGGAGCTGGAGAAGTGCCGTG  
GCGTCTTCCCCGAGAATTCACTGAGAGGGTCCCATGACGCGGGGGCCAGGCAGCCTCCGGCGCTGTGAAGAAC  
ACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTGTTTTGTTTTGTTTTTCATCTTTTGAAGAGCAAAAGGAAA  
TCAAGAGGAGACCCCAAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTCCAAAGAGCCGCGTCCCGGCAA  
GTCCGGCGGAATTACCACTGTTCTGAAGCTGCTGTCTCTAGTTGAGTTTCTGGCGCCCTGCCTGTGCC  
GCATGTGTGCTGGCCGAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCGTAAGCTTGGCCGCGCCA  
CCCCGGCAAGGGTCCCTTTTCTGGCAGCTGCTGTGGTGGGGCCAGACACAGCCTAGCCTGGCTGTGCCCC  
GCAGACGGTCTGTGTGCTTTTGAATAAATCTTAGTGTTCAAAACAAAATGAAACAAAAAAAATGAAAAA  
AAAAAAAAAAAAAAAAA

**FIGURE 696**

GCTGGAGG**ATG**TGGCTGCAGAGCCTGCTGCTCTTGGGCACTGTGGCCTGCAGCATCTCTGCACCCGCCGCTCGC  
CCAGCCCCAGCACGCAGCCCTGGGAGCATGTGAATGCCATCCAGGAGGCCCGGCGTCTCCTGAACCTGAGTAGAG  
ACACTGCTGCTGAGATGAATGAAACAGTAGAAGTCATCTCAGAAATGTTTGACCTCCAGGAGCCGACCTGCCTAC  
AGACCCGCCCTGGAGCTGTACAAGCAGGGCCTGCGGGGCAGCCTCACCAAGCTCAAGGGCCCTTGACCATGATGG  
CCAGCCACTACAAGCAGCACTGCCCTCCAACCCCGGAAACTTCCTGTGCAACCCAGACTATCACCTTTGAAAGTT  
TCAAAGAGAACCTGAAGGACTTTCGTCTTGTCATCCCCTTTGACTGCTGGGAGCCAGTCCAGGAG**TGA**GACCGGC  
CAGATGAGGCTGGCCAAGCCGGGAGCTGCTCTCTCATGAAACAAGAGCTAGAAACTCAGGATGGTCATCTTGGA  
GGGACCAAGGGGTGGGCCACAGCCATGGTGGGAGTGGCCTGGACCTGCCCTGGGCCACACTGACCCTGATACGG  
CATGGCAGAAGAATGGGAATATTTATACTGACAGAAATCAGTAATATTTATATATTTATATTTTAAAAATATTT  
ATTTATTTATTTATTAAAGTTCATATCCATATTTATTCAAGATGTTTACCGTAATAATTATTATTTAAAAATAT  
GCTTCT

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**FIGURE 697**

MWLQSLLLGTVACSIAPARSPSPSTQPWEHVNAIQEARRLLNLSRDAAEMNETVEISEMFDLQEPTCLQTR  
LELYKQGLRGSCLKKGPLTMMASHYKQHCPPTPETSCATQTITFESFKENLKDFLLVIPFDCWEPVQE



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**FIGURE 698**

AGTTACGCTTCGGGGCGTGCCCGGGAGCAGTTGGCTCGCCCCCTGGCGGCTGCTCAGCGCGCGCGCGGCGCA  
GGCTCAGAGACAGCCCGCCGGCGAGGAGAGGGAGGGCGCCAGTGTGCAGCATGCTCGGAGGAGGTTTCGCG  
CGCGGACCGCGCTGATGGGCGCGCGCGCGGCGAGCTGCAGAGGTGCGCCGCTCTGACCCGAGCTGCG  
TGCATCCGACGCCCTCAACCGCTTCGGCAAGACGGCGCTGCAGGTTATGATGTTTGGCAGCACCGCATCGCC  
TGAGCTGTGTAAGCAAGGTGCCACGCCCAATGTCCAGGACACCTCCGTCACCGTCCAGTCCATGACGCGCC  
GCATGGATCTCTGGACACCTGAAGCTCTAGTGGAGACCGGGCTGATGTCAACGTGCTGATGGACCGGG  
CACTTCCAATCCATCTGGCAGTTCAAGAGGGTCAACACTGCTGTGGTCAGCTTCTTGCACGTGAATCTGATCTCC  
ATCGCAGGGACGCCGGGGTCTCACACCTTTGAGCTGGCATGCGAGAGGGGCTCAGGACTCGTGACATCC  
TGACGGGCACTAGTGGCCCGCTGTGATCTGGGGTCAACCTCTCCAGCAAGAGAACCCCGTGGGGTTATGTAT  
CAGAAGAGAGGGGAAGAACAATCTTCTTCTTGTCTTCTGCCACTGCTGCAGTAGGGGAGGACAGAGTT  
GTGGCTTATAGGTTGGTTTTGGGGGTGTGAGTGTGTGGGGACGTTTCTCAITTTGTTTTCTCACTCTTTT  
GTGTGTGGACAGAGAAGGGCTCTGCAGGCCACAGCCACCTAAACGGTTCAGTTTCTTCTCGCCTCAGGCTGC  
TGGGGCTCTCAGCAGACAGCAAGGGCAGACAGTTAAGAGTAGAGTACGTACCTCAGGAGGCTAGAGACTGT  
GGCCTTGGCCGGCTGTGCTCAGAGAACTGAAGTGTGCGAGTTGCTTCAGGCATGGGGGGTGGGGGGAGCGTCCA  
AATCAATAAGAAGGTAGAATGAGTTATGAGTTATTCATATTCTGTTGGAAGCTGTGTTTCCAGTCTCTTGTACAG  
CGTTTAAAGAAATGAGTTATATTATGCTTATTTAGGAATAATGTGTGTAATAATTAAATGTTTTACCA  
TTAAATTTAGCTTGTGCATGATCAAAAAAATAAAAAA

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**FIGURE 699**

MLLEEVRA GDRLSGAAARGDVQEVRRLLHRELVHPDALNRFGKTALQVMMFGSTAIALELLKQGASPNVQDTS GT  
SPVHDAARTGFLDTLKV LVEHGADVNVDPGTGALPIHLAVQEGHTAVVSFLAAESDLHRRDARGLTIPLELALQRG  
AQDLVDILQGHMVAPL

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**FIGURE 700**

GGGGAGATCTTAGCTGAAGATGACTGACAGTGTATTTATTCCATGTTAGAGTTGCCTACGGCAACCCAAGCCCA  
GAATGACTATGGACCACAGCAAAAATCTTCCTCTCCAGGCCTTCTTGTTCTTGCCCTTGCGCAATAGCTTTGGG  
GCTTCTGACTGCAGTCTTCTTGAGTGTGCTGCTATACCAGTGGATCCTGTGCCAGGGCTCCAACACTCTCCACTTG  
TGCCAGCTGTCTTAGCTGCCAGACCCGCTGGATGAAATATGGTAACCATTTGTTATTATTTCTCAGTGGAGGAAAA  
GGACTGGAATTTAGTCTGGAATTTCTGCCAGCCAGAGACTCACACCTCCTTGTTGATAACGGACAATCAGGAAAT  
GAGCCTGCTCCAAGTTTTCTCAGTGAGGCCCTTTTGCTGGATTGGTCTGAGGAACAATTTCTGGCTGGAGGTGGGA  
AGATGGATCACCTCTAAACTTCTCAAGGATTTCTTCTAATAGCTTTGTGCAGACATGCGGTGCCATCAACAAAAA  
TGGTCTTCAAGCCTCAAGCTGTGAAGTTCCTTTACACTGGGTGTGTAAGAAGTGTCCCTTTGCAGATCAAGCTTT  
ATTCTGAAGAATAAACCTAGCTGGCATGCTGGTGTGTACCTGTAGTCCCTAGCTATTTGGGAAGCTGAGGTGGGAG  
GGTCGCTTGAGCCCAAGGAGTTTGAGGCTGCAGTGAGCTATGATTGTGCCACTGTACTCCAGCCTGGGAGATAGAG  
CAAGACTCCATCTCTAAAAAATAAATGCTAATGTGAGAAATATAAATTTGTGGGAAATGAGTGAGGGCAAGG  
TGGTACTTCCTCCTCTGAGCTCTTACACGTAATGCAAAAACCCGGTCTTAACTGATTTTGTTTTTTTCTGAG  
TATGCATATATGTGGTTGAATGAACCAATGTGTGATTGTATCTTTTCCATTATGTGACTGTTTGACCTGCATATT  
AATTTCAAGATAGCAGTCAATTCGATAAGGCATTTTCA TAGAGGAAAGTTTACAGAAACAGTTTATGTGGTTGGA  
TCACCAAAATATCTTAGGTACTAAGGCCTCAAAAATAAGAAAACTTTATTATTCTCCTCAGTAGAGTTTGGAC  
ATACATAAGGAGAGAAGGTACAGTGATGAAGGAGACCAATAATTCTGTAGTGTGATGATCCTGGATTATAATCTT  
TTTCTCTTTATCTTTTCATAGTTTTTTTAAAAACATGGACTGTATCTTATCTACCACTATATCCCAAATACCTAAG  
ATAGTGCTTACGTTCACTGACTATTAAATAAATAATGGATGAATTAATAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 701**

MTDSVIYSMLELPTATQAQNDYGPQQKSSSRPSCSCLVAIALGLLTAVLLSVLLYQWILCQGSNYSTCASCPC  
PDRWMKYGNHCYYFSVEEKDWNSSLEFCLARDSHLLVITDNQEMSLQVFLSEAFCWIGLRNNSGWRWEDGSP  
FSRISSNSFVQTCGAINKNGLQASSCEVPLHWVCKKCPFADQALF

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**FIGURE 702**

TGAAGATCAGCTATTAGAAGAGAAAGATCAGTTAAGTCCTTTGGACCTGATCAGCTTGATACAAGAAGTACTGAT  
TTCAACTTCTTTGGCTTAATTCTCTCGGAAACGATGAATAATATACAAGTTATCTTTGGCTTTTCAGCTCTGCATC  
GTTTTGGGTTCTCTTTGGCTGTTACTGCCAGGACCCATATGTAAAAGAAGCAGAAAACCTTAAGAAATATTTAAT  
GCAGGTCATTAGATGTAGCGGATAATGGAACCTCTTTCTTAGGCATTTTGAGAATTGGAAAGAGGAGAGTGAC  
AGAAAAATAATGCAGAGCCAAATTGTCTCTTTTACTTCAAACCTTTTAAAAAAGTAAAGATGACCAGAGCATC  
CAAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTCAAGTTTTTCAATAGCAACAAAAAGAAACGAGATGAC  
TTCGAAAAGCTGACTAATTATTTCGGTAACGTGACTTGAATGTCCAACGCAAGCAATACATGAACATCATCCAAGTG  
ATGGCTGAAGTGTGCCAGCAGCTAAACAGGGAAGCGAAAAAGGAGTCAGATGCTGTTTCAAGGTCGAAAGAGCA  
TCCCACTAAATGGTTGTCTGCCTGCAATATTTGAATTTTAAATCTAAATCTATTATTATATTTAACATTATTT  
ATATGGGGAATATATTTTTAGACTCATCAATCAAATAAGTATTTATAATAGCAACTTTTGTGTAATGAAAAATGAA  
TATCTATTAATATATGTATTATTTATAATTCCTATATCTGTGACTGTCTCACTTAATCCTTTGTTTCTGACTA  
ATTAGGCAAGGCTATGTGATTACAAGGCTTTATCTCAGGGGCCAACTAGGCAGCCAACTAAGCAAGATCCCATG  
GGTTGTGTGTTTATTTCACTTGATGATACAATGAACACTTATAAGTGAAGTGATACTATCCAGTTACTGCCGGTT  
TGAAAATATGCCTGCAATCTGAGCCAGTGCTTTAATGGCATGTGACAGCAACTTGAATGTGTCAGGTGACCCGTG  
ATGAAAACATAGCATCTCAGGAGATTTTCATGCCTGGTGCTTCCAAATATTGTTGACAACTGTGACTGTACCCAAA  
TGGAAAGTAACTCATTGTGTTAAATATCAATATCTAATATATATGAATAAAGTGAAGTTCACAAC

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**FIGURE 703**

MKYTSYLAFQLCIVLGS LGCYCQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSF  
YFKLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELIVMAELSPAATG  
KRRRSQMLFQGRRASQ

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**FIGURE 704**

GTITGAGCAGCATTGTTAGAGCCTGTGGAAAAACACITTTACAACITGTTAACTGTCTTTCATCTTTACAGAGGAATA  
GTCTACAAAGGAAGACTTGTAACTGGAGAAGAGACCTGTCATTTACTCCATCCTTTATAGTGATGCTACAGGAC  
GAAGAGGAATGATATAAAACATTGGCGAGCAACTCAATAAAGCGTATGAAGCCTTCCGGCAGGCATGTCATGGATA  
GAGATTCTGCAGTAAAAAATTACAGCAAAAGACTGAGAAGCTATGAGCAGAGAATACGTGAACAACAGGAACAGC  
TGTCACTTCAACAGACTATTATTGACAAGCTAAAATCTCAGTTACTTCTGTGAATTCCACTCAAGATAACAATT  
ATGGCTGTGTTCTCTGCTTGAAGACAGTGAAACAAGAAAGAATAATTGACTCTTGATCAGCCACAAGATAAAG  
TGATTTTCAGGAATAGCAAGAGAAAACTACCAAAGGTAAGAAGACAAGAGGTTTCTTCTCTAGAAAAAGAACTT  
CAGCAAGGAGTCTTGGCAGTCCTTTGCTCCATGAAAGGGGTAATATAGAGAAGACTTCTGGGATCTGAAAGAAG  
AATTTTATAAAATATGCATGCTAGCAAAAAGCAGAAAGACCCTTAAGCAAACCTTAATATACCAGACACTGCAA  
CTGAAACACAGTGCTCTGTGCTATACAGTGTACGGATAAAAACAGATAAAACAAGAACGCTGTTTAAGCCTCAGG  
CTAAAGATGATATAAATAGAGGTGCACCATCCATCACAATCTGTACACCAAGAGGACTGTGACAGATGAGGAAG  
ACACCTCTTTTGAATCACTTTCTAAATTCATATGTCAGTTTCCACCTATGGACAATGACTCAACTTCTTACATA  
GCACCTCCAGAGAGACCCGGCATCCTTAGTCCTGCCACGTCTGAGGCAGTGTGCCAAGAGAAATTTAATATGGAGT  
TCAGAGACAACCCAGGGAACTTTGTTAAACAGAGAAGAACTTTATTGAAATTCAGGGAATTGACCCCATAGCTT  
CAGCTATACAAAACCTTAAACAACTGACAAAAACAAGCCCTCAAATCTCGTAAACACTTGTATCAGGACAACCTC  
TGGATAGAGCTGCGTGTGTCACCTGGAGACCATAATGCATTATATGTAATAGCTTCCCACCTTCTGGACCCAT  
CTGATGCACCTTTTCCCTCACTCGATTCCCCGGGAAAAGCAATCCGAGGACCACAGCAGCCCATTTGGAAGCCCT  
TTCCTAATCAAGACAGTGACTCGGTGGTACTAAGTGGCACAGACTCAGAACTGCATATACCTCGAGTATGTGAAT  
TCTGTCAAGCAGTTTTTCCCACCATCCATTACATCCAGGGGGGATTTCCTTCGGCATCTTAATTCACACTTCAATG  
GAGAGACTTAAGACACATTGAAAACAGACATATCAAGTCTATGTGATGATTTTGGGTTTTTAATACTATAAAT  
ACTTGATTGAAATAAATCAAGATCATTATAGGAAAATCTAGTTTCACAGCTATTGAAATTTTTTCTGGAT  
TTACTATATAACTCTTATTTTTTAAAGATCATTCTGTCTTTCAAGGAGAAATAAGCCTAAAAAGAGAAAAACA  
AAAAAAATCTGTATAAACTGTAATCCTTTGTATTTCATGTTTACAGTGCTATTACTATAATTCAAAATTTATGTA  
TGTGACTTAGAGTTATATAATCATAATTTATGTTTATTTCAAATATCTAAGTTTATTGCTTGGATTTCTAGTGAG  
AGCTGTTGAATTTGGTGATGCAATGTTTCTAGGGTTTTTTAGTTGTTTTATTGAAAAATTTAATTATTTA  
TGCTATAGGTGATATTCTCTTTGAATAAACCTATAATAGAAAAAGCAGACAACATAAACATCTTTGTAATATC  
AAACCTAATACATTCTTGTCCAGTGATAAAAACACTGGTAGAATTATTTAAACACTTTAGATTTTTAAATAATA  
TACATGCTTTAATTTTTACTGTGTATAGTACATGATGAAATTAATTAATATTAAGAGGT

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**FIGURE 705**

MDKNIGEQLNKAYEAFRQACMDRDSAVKELQQKTENYEQRIREQQEQLSLQQTIIIDKLKSQLLLVNSTQDNNYGC  
VPLEDSETRKNNLTLDQPQDKVISGIAREKLPKVDIASAESSI



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**FIGURE 706**

GTCTACACCAGCGGTGTCGCTGCCCGAAAGTGAGAGAAGGCTGATATTGCTAGCTGGAATCCAGGCCTGGGTGCT  
GCATGGTGGCGCCCCCTCCCGGTGACCACCGCTGCGTTTTCTCGGGCTTTCTCTGAGGAGCTGCTCTTGTGCTGTT  
TGGCCCCTGCTACTCGGAATGGAAACAAAGCATCGAAACAACTGAGATCCTGTTGTCCTATACCTGTGTA  
AGTTGGCCAGTCTCTTAAGGAAGGAATCAATTTCTTTGCGAATAAGAGCATGGCAAAGACTAGCTCTTGTACAAGAA  
TAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGCTGTTCTATAAAGATATCGAGGATTT  
AGCCGGAAGTTGTTGAAATCGATGAAACCAACGGACTTTTGCTTTTAGAACTGAATCCTCCTAACCCCTGGGACT  
TACAGCCCGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAACATATCTCACTCATGCCTGCATGGAC  
TCAAGTTAGGAGACAAGAGAATGGTGTGGACCTTGGTTAATCGGTCTGCTTTTGGCCGTGGATGGTGGTTGC  
TCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGCGAGACCTCATTATACATCAGTCATCTGCACCTCAG  
ACCACCTGAGTTACCCCACTGAAACAGCTTGCTGGGAGAAGACAGATATTCCTCATTTATGTGGAAACACAG  
AAAGCCCTGTATTTTGGAAATCTGAATCAGAGCGGTGTCAGTTGACTAATATCAATGTCGTGCCATTTGGAATAT  
GGCAGCAGGTGGACAAAAATCTTCGATTTCATGATCTTGATGGACGGTGTTCATCTGAGATGGACACTTGCATTA  
TTGTGGAGTACAAAGGTCAAAAATCTCAATATAGTAGACTGCACCAGACCCCAATGGGGGAAGGCTGCCTATGA  
AGGTTGCTCTAATGATGAGTGATTTTGTCTGGAGGAGCATCAGGCTTTCCAATGACTTTCAGTGGTGGAAAAATTTA  
CGGAGGAATGGAAAGCCCAATTCATTAACAGAAAGGAAGAAGCTCCTGAACACAAAGGCTCGGCTGGTGAAGA  
ACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATCTCACCCATCAGACAAAGTACATCAAGG  
AAACAAACACCAAAAAATGACCCAAATGAATCAACAATCTTATCAAGAAAACTCTGATGTGATAACATGGACCC  
CTCAGCCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCGAACAGACAGCAAGGGCATCATAGAGCCTC  
CAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTTGGAAATCTTGAATGCTGCTCTAGGAG  
ATGAAATATTTCTTCACTCATCCTGGATAAAGAATACCTTCACTTGGGCTGGATTTAAGATTACAACCTTGTGG  
TCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATATGACTATTTGGTTGACTTTTGTAGATT  
TATCCTTCCCAAGAAAGACCAACAGAGAACATCCCTATGAGGAATCCATAGCCGGGTGGATGTCATCAGAC  
ACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCTAACACGGCTCCAGCGGGATCCTGACA  
TATACCATCACCTGTTTGGAAATCATTTTCAATAAAAACTCCCCCTCACACCAACCACTGGAAGTCATTCTGA  
TGTGCTGTGAGCAGAATGGGCTGCGATTTTGAAGAATGCAAAACCACATGAAATTTCAAGAATTCAGTGATC  
TGATGCAAAATAAAAAATTTATCATTACATCTTGAAACCCAGGAAGCTTACAGCAAAGAGACTATGCTTTATGACGT  
CAGCAATAGATAATTCACGTTGCCCTTTGTGATTTGTATATATAGCTTACATTTTGTGGATCACTACATAGCCAGA  
TTCAAAATATTTTACTTGTGTTCCATCCACAGTTCTCTACAGAAAGAACCAATGAACCAATAGGAACAAATTTCTC  
TGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGGAACAGGAAGAGAAAAACATCCAAGA  
CTACAGTGAAAACTGGAAATGGTCTGTTTTCTGTGATATTCTGATGATTAAAGTGCAAAATTTTTCTTAGGAAAT  
GTGATTTGTTAACTAGCATCTGTTTTTACATGTTGACATTTCTAACACACACCACTGATTTGAACTTCAAAAT  
TATTTTCTGATTATATAGTATAGGCTTGATTTCTGAAGATACAAGAATTCATGGTGGAAATTTGTCCTGAAAT  
TCTAGATTCTAATTAGAAGTGTTTATTACCAACTTCTCACTTAGATTAACTCAGTGATGTTGATTATTCTGG  
TTAACCCCTCACATGCATAACAATAATGCTAGAAATTCAGGAATTATAATTTTGTGATTATACTGTGTGGTAAA  
TTATTCAGTTCTCACTGCAATAAATAATGTATATCAATGTATGTAGGTGAGAATGCTATGGTGGCAAAAT  
AAAAGATTATTTTAAAAATATGAAAAA

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**FIGURE 707**

MDENNGLLLLLELNPPNPWDLQPRSPHEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWWLLHEPPS  
DWLERLCQADLIYISHLHSDHLSYPTLKKLAGRRPDIP IYVGNTERP VFWNLNQSGVQLTNINNVVFFGIWQQVDK  
NLRFMILMDGVHPMDTCIIVEYKGHKILNIVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTTEWKA  
QFIKTERKKLLNYKARLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKNSDVITWTPRGAT  
LDLGRMLKDRDTSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET  
DEDNPFPGGYDYLVDLFLDLSPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF  
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

**FIGURE 708**

CCGGGGGGCATGAGGGTCCGAGACTTGTCTTCTGTCCCTTCCAAGACCCGGCGACAGGAGGCATGAGGGGCCCC  
CGGCCGA**AATG**ACAGTGTCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGCTGAGCTCGG  
GACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAATCCGTGAGC  
TGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTGTGCGGGGGCC  
TCTGGCGGCTGGTCTTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGCAAGGCTTGC  
TGGAGCGCGTGAACACGGAGATACACTTTGTCA**CCAAAT**GTGCCTTTCAGCCCCCCCCAGCTGTCTTCGCTTCG  
TCCAGACCAACATCTCCCGCTCTCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGATCACTCGCC  
AGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTACAGCCCGACTCCTCAACCTTGCCACCCCATGGAGTCCCGGC  
CCCTGGAGGCCACAGCCCCGACAGCCCCGACGCCCTCTGCTCCTCTACTGCTGCTGCCGTGGGCTCCTGCTG  
TGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGCGGAGGACACCCGCTGGGGAGCAGGTGCCCC  
CCGTCCCCAGTCCCAGGACCTGCTGCTTGTGGAGCACT**GGAC**CTGGCCAAGGCTCATCCTGCGGAGCCTTAAAC  
AACGAGTGAGACAGACATCTATCATCCCATTTTACAGGGGAGGATACTGAGGCACACAGAGGGGAGTCACCAGC  
CAGAGGATGTATAGCCTGGACACAGAGGAAGTTGGCTAGAGGCCGCTCCTTCTTGGGCCCTCTCATTCCCTC  
CCCAGAATGGAGGCAACGCCAGAATCCAGCACCGGCCCAITTA**CCCA**ACTCTGAACAAAGCCTTGCCCCCATG  
AAATTGTTTATAAATCATCTTTTCTCCCA

**FIGURE 709**

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWR  
LVLAQRWMERLKTIVAGSKMQGLLERVNTEIH FVTKCAFQPPPSCLRFVQTNISRLQETSEQLVALKPWITRQNF  
SRCLELQCQPDSSSTLPPWSPRPLEATAPTAPQPPLLLLLLLPVGLLLLAAAWCLHWQTRRRRTPRPGEQVPPVP  
SPQDLLLVEH

## FIGURE 710

GCCTGGCCCTATTGAAGGTTTTTAATCTTCAGAGTTTCGACTTTATCAACAACACTTAGAAGCCACCAAGAAT  
TGCAGATGGATCCTAATAGAATATCAGAAGATGGCACTCACTGCATTTATAGAATTTTGAGACTCCATGAAAATG  
CAGATTTTCAAGACACAACCTCTGGAGAGTCAAGATACAAAATTAATACCTGATTCTATGTAGGAGAATTAACAGG  
CCTTTCAAGGAGCTGTGCAAAAGGAATTACAACATATCGTTGGATCACAGCACATCAGAGCAGAGAAAGCGATGG  
TGGATGGCTCATGGTTAGATCTGGCCAAGAGGAGCAAGCTTGAAGCTCAGCCTTTTGCTCATCTCACTATTAAATG  
CCACCGACATCCCATCTGGTTCCCATAAAGTGAGTCTGTCTCTTGGTACCATGATCGGGGTTGGGCCAAGATCT  
CCAACATGACTTTTAGCAATGGAAAACATAATAGTTAATCAGGATGGCTTTTATTACCTGTATGCCAACATTTGCT  
TTCGACATCATGAACTTCAGGAGACCTAGCTACAGAGTATCTTCAACTAATGGTGTACGTCACATAAACACGCA  
TCAAAATCCCAAGTTCTCATACCTGATGAAAGGAGGAAGCACAAGTATTGGTCAGGGAATCTGAATTCACAT  
TTTATTCCTAAACGTTGGTGGATTTTAAAGTTACGGTCTGGAGAGGAAATCAGCATCGAGGTCTCCAACCCCT  
CCTTACTGGATCCGGATCAGGATGCAACATACCTTTGGGGCTTTAAAGTTTCAGAGATATAGATTGAGCCCAAGTTT  
TTGGAGTGTATGTATTTCTCGGATGTTTGGAACATTTTTTAAACAAGCCAAGAAAGATGTATATAGGTGTGT  
GAGACTACTAAGAGGCATGGCCCCAACGGTACACGACTCAGTATCCATGCTCTTGACCTTGTAGAGAACACGGT  
ATTTACAGCCAGTGGGAGATGTTAGACTCATGGTGTGTACACAATGGTTTTTAAATTTTGTATGAATTCCTAG  
AATTAACAGATTGGAGCAATTACGGGTTGACCTTATGAGAACTGCATGTGGGCTATGGGAGGGGTTGGTCCC  
TGGTCAITGTGCCCTTCGCAGCTGAAGTGGAGAGGGTGTATCTAGCGCAATGAAGGATCATCTGAAGGGGCAA  
ATTCTTTGAATTTGTACATCATGCTGGAACCTGCAAAAAATACCTTTTCTAATGAGGAGAGAAAAATATATGTAT  
TTTTATATAATATCTAAAGTTATATTTCAGATGTAATGTTTTCTTTGCAAGTATGTAAATTATATTTGTGCTA  
TAGTATTTGATTCAAAATATTTAAAAATGCTTGTCTGTGACATATTTAATGTTTTAAATGTACAGACATATTTA  
ACTGGTGCATTTGTAAATCCCTGGGGAAAACTTGCAGCTAAGGAGGGGAAAAAATGTTGTTTCTAATATCA  
AATGCAGTATATTTCTCGTTCTTTTAAAGTTAATAGATTTTTTCAGACTTGTCAAGCCTGTGCAAAAAATTA  
AATGGATGCCTTGAATAATAAGCAGGATGTTGGCCACCAGGTGCCITTCAAATTTAGAAACTAATTGACTTTAGA  
AAGCTGACATTTGCCAAAAGGATACATAATGGGCCACTGAAATCTGTCAAGAGTAGTTATATAATTTGTGAACAG  
GTGTTTTTCCACAAGTGCCGCAAAATGTACCTTTTTTGTTTTTTCAAAATAGAAAAGTTATTAGTGGTTTATCAG  
CAAAAAAGTCCAATTTTAATTTAGTAAATGTTATCTTACTGTACAATAAAAAACATTGCCTTTGAATGTTAAT  
TTTTGTGACAAAAATAAATTTATATGAAAACCTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 711**

MDPNRISEDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRRIKQAFQGA VQKELQHIVGSQHIRAEKAMVD  
GSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRGWAKISNMTF SNGKLIVNQDGFYLYANICFR  
HHETSGDLATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFHFYSINVGGFFKLRS GEEISIEVSNPSL  
LDPDQDATYFGAFKVRDID

CTGGGGTCCGTTCCCCAACTTCTCGGGCTCCGGACTCCCAAGTCTCCGCCGACCCCTCCTTTGGATATTCCT  
CGTGTCTCGATTCTGAGAGAGGGGGAAGACGGTGGGGCTCCCACTTGCCCGCAGAAAGATGAGTCTTTGG  
CCGCCTGGTCAATACCTTACGTGGCTACCAACTTGTCTCTAAACCCATCCCGGTGAGGAGGTGGCTGTGGC  
CGACTACACCTCGAGTAGGGAGGTCGGGAGGAAGGGCAGCTGATTCTGTCCAGAACACTCCCAACCGCACTTG  
GGACTCGCTCCTGGTCAACCCAGGAACTCACAGAGTGGATTCCGACTTCTCCAGCTGGAGTGGAGGCTGACGC  
CCTAGTGAATTTCCATCAGTATTCTTCCAGCTGCTACCCCTTCTATGAGAGCTCCCTCAGGTCCTGCACACTGA  
GGTCTCGACGACCTGACCGACCTCATCCGTAACCAACCCAGCTGGTCAAGTGGCCACTTGGCTGTGGAGCTAGG  
GATCCGCGAGTGCTTCCATCACAGCCGTATCATCAGCTGTGCCAATTGCGCGGAGAACGAGGAGGGCTGCACACC  
CCTGCACCTGGCCTGCCCAAGGCTGATGGGGAGATCCTGGTGGAGCTGGTGCAGTACTGCCACACTCAGATGGA  
TGTACCGACTACAAGGGAGAGACCGTCTTCCATTATGCTGTCCAGGGTGACAATTTCCAGGTGCTGCAGCTCCT  
TGGAGGAACGCACTGGCTGGCTGAACCAAGTGAATAACCAAGGGCTGACCCCGCTGCACCTGGCCTGCCAGCT  
GGGGAAGCAGGAGATGGTCCGCGTGTCTGTCTGTGCAATGCTCGGTGCAACATCATGGGCCCAACGGCTACCC  
CATCCACTCGGCCATGAAGTTCTCTCAGAAGGGGTGTGCGGAGATGATCATCAGCATGGACAGCAGCCAGATCCA  
CAGCAAGACCCCGTTACGGAGCCAGCCCCCTCCACTGGGCCAAGAACGCAAGATGGCCCGCATGCTGTGAA  
ACGGGGTGCACAGCTGAACAGCACCACTGCTCCGCGGGGAACACGGCCCTGCAGCTGGCGGTGATGCCGAACCGCT  
CGACTGTGCCATAGTGTGCTGTGACCCAGCGGGCAACCGGGATGCGGAGACGCGCAACACCCCGTGCAT  
CCTGGCCATGTGCAAGAACACAGCTGGAGATGATCAAGGCCCTCATCGTGTTCGGAGCAGAAGTGGACACCCGAA  
TGACTTTGGGGAGACTCCTACCTTCTAGCTTCCAAAATCGGCAGACTTGTCCACGAGGAGCGCATCTTGACTCT  
GCTGAGAACCCTGGGGGCGGAATACTGCTTCCACCCATCCACGGGGTCCCCGCGGAGCAGGGCTCTGCAGCGCC  
ACATCATCCTTCTCCTTGGAAAGAGCTCAGCCCCACCGATCAGCCTAAACAACCTAGAACTACAGGATCTCAT  
GCACATCTCACGGGCCGGAAGCCAGCGTTATCCTGGGCTCCATGAGGACGAGAAGCGGACCCAGCACCT  
GCTGTGCTGGATGGAGGAGGAGTGAAGGGCTCATCATCATCCAGCTCCTCATCGCCATCAGAAAGGCTCGGG  
TGTGGCCACCAAGGACCTGTTTGACTGGGTGGCGGGACACGACTGGAGGATCCTTGGCCCTGGCCATTCTGCA  
CAGTAAGTCCATGGCCATACATGCGCGGCATGTACTTTCGATGAAGGATGAGGTGTTCCGGGGCTCCAGGCCCTA  
CGAGTCGGGGCCCTTGGAGGAATTTCTGAAGCGGGAGTTTGGGGAGCACACCAAGATGACGGACGTGAGGAAACC  
CAAGGTGATGCTGACAGGGACACTGTCTGACCGGCAGCCGGCTGAACCTCCACTTCTCCGGAATCAGATGCTCC  
AGAACTGTCCGGGAGCCTCGTTTCAACCAAGACGTTAACTCAGGCCCTCCAGCTCAGCCCTCAGACCAGTGGT  
GTGGCGGGCGGCCGAAGCAGCGGGGCGCTCCTACTTACTTCCGACCAATGGGCGCTTCTTGGACGGTGGGT  
GCTGGCCAACAACCCACGCTGGATGCCATGACCGAGATCCATGAGTACAATCAGGACCTGATCCGCAAGGGTCA  
GGCCAACAAGGTGAAGAACTCTCCATCGTTGTCTCCTTGGGGACAGGGAGGTCCCCAAGTGCTGTGACCTG  
TGTGGATGCTTCCGTGCCAGCAACCCCTGGGAGCTGGCCAAGACTGTTTTTGGGGCCAAGGAACCTGGGCAAGAT  
GGTGGGACTGTTCACGGATCCAGACGGGGCGGCTGTGGACCGGCACGGCCCTGTGCGAGATGCTGGCGAT  
CCAGTACTTTCAGATTGAACCCCACTGTTGGGACGGACATCATGCTGGATGAGGTGAGTACACAGTGTGTTCAA  
CGCCCTCTGGGAGACCGAGGTCTACATCTATGAGCACCGCGAGGAGTTCAGAAAGCTTATCCACCTGTGCTCTC  
ACCTTGAGGCTCCCAAGCTCTCACGGCCCAAGTGTGACCTCGTCTCAGCCCTGCGAGGCCAAGCCAGCC  
ACTGCCCTCCCGGCGAGATCTGGGCCAGGCACTCTGAGTCCATAGACAGGCCCTGGGAGATGCCAAGCTGCC  
TGCCGAGGCTGGTCTGAAGGCCTGTCTCCCACTAACCCCCCTTCCATCATCTTCTGTATGCCAGGXTGGGA  
AAGTCTAGAGCCCCCTTTGGCCCTTTCCCTGAGCTGGAAGGACCAACTGACTCCCCCTGATGACTCAAAATTAAG  
GGTACCGGGCAACAACCTGACCGTGCCCCAGCCCCAGCTACCTGAGGGGCTGCGGGGCTGCCCTTCCGCCCA  
GCCCCAGCAAGGGCATTCCAGGCTTCTTGGTGGGTGACGCCCAATCCCTTGCCCTTGCTCGCTTCCCTGGG  
GGCTGGGACTAAAGAAATGGGTGTCCTCCACCCATCAGCTGGGAAGGCCAGGCCGAGGAGTGGGATGCCCGT  
TGGACTTTGCCCTCACACTGGCCAGGCCCTCACACTGCCCCACCCGAGAACCTCAGCTCTCAAAGGTCACT  
CTGGGAGTTTCTTCTCCCAATGGAAGTGGCTTAAGAGCCAAAATGAAATAAATCATTTGATTCAAGTTCAA  
AAAAAAAAAAAAAA

**FIGURE 713**

MQFFGRLVNTFSGVTNLF SNPFRVKEVAVADYTSSDRVREGQLILFQNTPNRTWDCVLVNP RNSQSGFRLFQLE  
LEADALVNFHQYSSQLLPFYESSPQVLHTEVLQHLTDLIRNHPSWSVAHLAVELGIRECFHHSRIISCANCAENE  
EGCTPLHLACRKGDGEILVELVQYCHTQMDVTDYKGETVFHYAVQGDNSQVLQLLGRNAVAGLNQVNNQGLTPLH  
LACQLGKQEMVRVLLLCNARCNI MGPNGYPIHSAMKFSQKGAEMII SMDSSQIHSKDPY GASPLHWAKNAEMA  
RMLLKRCNVNSTSSAGNTALHVAVMRNRFDCAIVLLTHGANADARGEHGNTPHLHMSKDNVEMIKALIVFGAE  
VDTPNDFGETPTFLASKIGRLVTRKAILTLLRTVGAEYCFPP IHGVP AEQGSAA PHHFFSLERAQPPPISLNNLE  
LQDLMHISRARKPAFILGSMRDEKRTHDHLLCLDGGGVKGLII IQLLIAIEKASGVATKDLFDWVAGTSTGGILA  
LAILHSKSMAYMRGMYFRMKDEVFRGSRPYESGPLEEFLKREFGEHTKMTDVRKPKVMLTGTLSDRQPAELHLFR  
NYDAPETVREPRFNQNVNLRPPAQPSDQLVWRAARSSGAAPTYFRPNGRFLDGGLLANNPTLDAMTEIHEYNQDL  
IRKGQANKVKKLSI VVSLGTGRSPQVPVTCVDVFRPSNPWELAKTVFGAKELGKMVVDCC TDPDGRAVDRARAWC  
EMVGIQYFRLNPQLGTDIMLDEVSDTVLVNALWETEVYIYEHREEFQKLIHLLLS P



## FIGURE 714

TAAACCTTTAGGAAATTAGTACCAGACTTTTATATTGGTCAACAGCAAAATGAACATTACTACTCAGCCTCCAAC  
ACATGCAGTTTGCTATACCAGGGATCCTGTCAAAATATACACCACTTATAGCTTCTTAAGTGCAGTTATCATAG  
AGCACAGTCCCTGACATCACACAGCTGCAGAGATGAATAAACAAAGAGGAACCTACTCAGAAAGTGAGTCTGGCCC  
AGGACCCAAAGAGGCAGCAAGGAACTTAAGGGCAATAAAATCTCCATTTAGGAACCAACAGGAAATATTC  
AAGTAGAATTAACCTTCAAATGCTTCTTCGGATCATCAAGGGAATGACAAGACATATCACTGCAAAGGTTTAC  
TGCCACCTCCAGAGAAGCTCACTGCTGAGGTCTTAGGAATCATTTGCAITGTCTGATGGCCACTGTGTTAAAAA  
CAATAGTTCCTTATTCCTTGTATTGGAGTACTGGAGCAGAAACAATTTTCCCTGAATAGAAGAAATGCAGAAAGCAC  
GTCATTGTGGCCATTGCTCTGAGGAGTGGATTACATATTTCCAACAGTTGTTATTACATTGGTAAGGAAAGAGAA  
CTTGGGAAGAAAGAGTTTGCTGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAAT  
GGTAAGACGTAATGTTTCAACACTTTACTAAAAGCTTATTTCTGTCAATATCATATTTGTAGAAATCATCCATA  
TGTTTATACATATATTTACTTCATATATTTTAAAGTCTGTGTAGTATTTCAACTGACTTCATAATATTTTATAT  
CATATACTGTTAATGCACATTTGGTTATTTCCAGTTTTGCTTTTCATGGAAACCATGCTTCTATAAATGTTTT  
ATCACAAATAAATATAAGAAACTAAAAAAAACCAAAAAAAAAAAAAAAAAAAGGCGGCCGATATAG

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# FIGURE 715

MNKQRGTYSEVSLAQDPKRQQRKLKGNKISISGTKQEIFQVELNLQNASSDHQGNDKTYHCKGLLPPPEKLTAEV  
LGIICIVLMATVLKTIIVLIPCIGVLEQNNFSLNRRMQKARHCGHCPEEWITYSNSCYIIGKERRTWEERVCPVL  
RRTLICFL

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FIGURE 716

GAATTCGATTTTGTAGACTTCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCACTGGTACTGAGGTTTGTCTGC  
CTGCCTTTCTTGGCATTGTCTAAACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCCGACCAACAGGCCGCCACCAAA  
AGCACCTCAAAGGAAGGAAAAAGAAAGGCCCTGAAAGACAGATGAATATCTCTTAGCAAGGTTCAAAGGCCGA  
TGGTGTAAAAATATAAGGCCAAGCTGATTGGCATTGATGATGTGCCAGATGCAGAGGGGATAAAGTAGGCCAAGA  
CTCTATGATGAACTAAAGGGAATGGCGCGAGCTGGTGGTCTCAGGGACAACACAACAAAGGATCTGGGTCAA  
CATTTCCCTTTCTGGGATAAAAAATAATTGATGAGAAAACGGGGTAATAGAGCATGAACATCCAGTAAATTAAGAT  
TCTTTTCATTGGCCGTGATGTGACAGACAAACCGGGCATTGGTTACGTGTGTGGAGGAGAGGCCAGCATCAGTT  
TTTTGCCATAAAAAACCGGGCAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAGTTATCTATAA  
TGTAAGAAAAAGGAAGAGAAAAAGAAAAGATAGAGGAAGCCAGCAAGCAGTTGAGAATGGGAGTGAGGCCCT  
AATGATTCTAGATGACCAAACTAACAACCTGAAATCGGAAAGCAAGATATCCTGTGTAGTGATCTAAACCTCGA  
AATCGACACCAATCAGAAATTTCTTAAGAGAAAAATCCATTCTTAACAAACGGCATCACCTCTGTCTCTCTCG  
ACCAACGCCTCAGGCATCCTTCTTGCTGAAAAATGCCCTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCC  
TGATCCTTTCCCGTGACGATCCTTTACACAGCCAGACCAATCGACACCTTCTTCGTTTGATTTCTCAAATCTCC  
AGATCAGAAGAAAGAGAATTTCAGTAGCTCGTCTACTCCGCTGAGTAAATGGGCCCTGAATGGTGTGTTGACTA  
CTTTGGTCAGCAATTTGACCAGATCTCTAACCGGACTGGCAACAGGAAGCTCAGGCAGGCCATGGCCCTTTTC  
AAGTTCGCAAAACCCAGCCAGCGAGTGAAGACTCAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAA  
ATCCTCCCCAGACCTTTTGTGGGAAGCCCTCCCAAAGGACTGTCCATACAGAAATGGCGTAAAGCAGGACTTGGAA  
AAGCTCTGTCCAGTCTCACACATGACTCCATAGCCATTATCCACCTCCCAAGATACCAACAGGAAGAGG  
CAGAAGGACTGCTAAGTCTTCAGCCAATGACTTGCTTGATCAGACATCTTTGCTCTCCCGCTCAGAACCTTC  
AGGCCAGGCGCTACCCACAGGACAACCTACAGCCCTGACGCCCAACCTCTGGATCTCTTCAAAACAAAGTGTCTCC  
TGCCCCAGTGGGGCCCGAGTTGGGTCTAGGTGGTGAATGTCTACACTTCTCAGGCAGGACCATGGAACACAGC  
ATCTTTGGTCTTCAATCAGTCCCCTTCAATGGCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCA  
GCCCGTCATTTTGGTACAAGTCCAGCTGTTTCAGGTTGGAACAGCCCTTACCCCTTTGACGCTCAACTCCCC  
TCCAGTGCCTGTGTCTGGGGCCCTTCTGCATCTGTGGCACCCTAATGCTTGGTCAACAACAAGCCCTTTGGGGAA  
TCCTTTTCAGAGCAATATTTTCCAGCTCTCTGTGTGCCACTCAGCCCCATCCATGCATCTCTCTCTCTGGT  
CACTCCTCCTCAGCCACCTCCAGAGCTGGCCCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCC  
ACTTTGGGGATAAAGAGATCAAGGATGTGAAAGAAATGTTTAAGGATTTTCAACTCGCCGAGCCACCTGTCTGTGCC  
CGCGCGGAAGGGAGAGCAGACTTCTCTGGGACTTTGAGTGCCTTTGCCAGTTATTCAACAGCAAGGTTGGCAT  
TCCTCAGGAGAATGCAGACCATGATGACTTGTATGCTAATCAACTATTGAACAAGATCAATGAACCAACCAAGCC  
AGTCCCAGACAAGTTTCCCTGCCAGTTACCAAACTACTGACAATGCAATTTGAGAACCCTTTCTTTAAAGATTCT  
TTTTGGTCTCATCAAGCCTCTGTGGCTTCTTCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTGGAAGA  
TCCTTTGTGCCATAATCTGAACTTGTCTGCAGACCATCCAGGGAATAAAAGGTGTGGCCTTAGTAGTCAAAAA  
CAAAGCTGATAGCCAGACAGCTTCTGATTCTTGCCTTGTTCAGCTTTGACGTATTATCTGTGTGCCTTATTCT  
CATTTGCCTTCTTACTTGTAAAAATGCTTTTCACTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAA  
TAAATTAAGATCTCTAACTCTCTAGCTTAAAGTGAAGTACAGTATGCTTCCCTACTGAACCTGCCTCTTG  
TGTCCCTGGAACCTTCTAGAACACCTGCCTTCTACCTCTGGTGGGAGATGACGCCACCACATCCCTTCATATC  
ATACTGTTTGAATAAATTTTCAATCCTTAAAAAATTTTTTTTTT

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**FIGURE 717**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDDVPDARGDKMSQDSMMK  
LKGMAAAGRSQGQHKQRIWVNI SLSGIKI IDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFAIK  
TGQQAEP LVVDLKD L FQVIY NVKKKEEEKKIEEASKAVENGSEALMILDDQTNKLKSESKDILLVDL NSEIDTN  
QNSLRENPF LTNGITSCSLPRPTPQASFLPENAF SANLNFPTPNPD PFRDDPFTQPDQSTPSSFD SLKSPDQKK  
ENSSSSSTPLSNGPLNGDVDFGQFDQISNRTGKQEAQAGPWPFFSSSQTPQPAVRTQNGVSEREQNGFSVKSSPN  
PFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAI IPPPQSTKPGRGRRTAKSSANDLLASDIFAPPVSEPSGQAS  
PTGQPTALQPNPLDLFKTSAPAPVGPQVGLGGVTVTLPQAGPWNTASLVFNQSPSMAPGAMMGQP SGFSQP VIF  
GTSPAVSGWNQPS PFAASTPPPVPVVGWPSASVAPNAWSTTSP LGNPFQSNIFPAPAVSTQPPSMHSSLLVTPPQ  
PPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTSSGTL SAFASYFNSKVGIPQEN  
ADHDDFDANQLLNKINEPPKPA PRQVSLPVTKSTDNAFENPFFKDSFGSSQASVASSQPVSSEMYRDPFGNPPFA

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FIGURE 718

GTCTGCGCCATTTTGCCGGGGTTTGAATGTGAGGCGGAGCGGCGCAGGAGCGGATAGTGCACGCTACGGTCCGGC  
GCTGGGGTTCCTCCTCCGTTTCTGTATCCCCACGAGATCCTATAGCAATCGAACTCAGCGATGCAAAATCTGCAA  
ACACTAACAGAAATATTTAAAGAAAACACTTGATCCTGATCCTGCCATCCGACGCTCCAGCTGAGAAATTTCTTGAA  
TCTGTTGAAGAAATCAGAAATTTCACTGTGCTTTTGACATTACTGGAGAAGTCCCAGGATAATGTTATCCAAA  
GTATGTGCTTTCAGTAACACTTCAAAAATATATTTAAAGGAAGTGGAGAATTGTTGAAGATGAACCAACAAAATT  
TGTGAAGCCGATCGAGTGGCCATTAAAGCCAACATAGTGCACCTTGATGCTTAGCAGCCAGAGCAAAATTCAGAA  
CAGTTAAGTGTAGCAATTAGCATTATTTGGCAGAGAAGATTTTCCACAGAAATGGCTGTACTTGGCTGACAGAAATG  
GTGAATCGCTTTCAGAGTGGAGATTTCCATGTTTATTAATGGAGTCTCCGTACAGCACATTCATTATTTAAAGA  
TACCGTCATGAATTTAAGTCAAAAGCAGTTATGGACTGAAATTAAGCTTGTTCTGGATGCCTTTGGCTTTGCCTTTG  
ACTAATCTTTTAAAGCCACTATTGAACCTGACAGTACCCATGCAAAATGATGCCTCTGCCCTGAGGATTCGTTT  
TCTTCCCTGATCCTGATCTCAAAATTTGTTCTATAGTTTAAACTTTCAGGATCTCCCTGAAATTTGGGAAGGTAAT  
ATGGAAATCTGGATGAATAATTTCCATACTCTCTTAACATTGGATAATAAGCTTTTACAAAATGATGATGAAGAG  
GAAGCCGGCTTATTGGAGCTCTTAAATCCAGATTTGTGATAATGCCGCACTCTATGACACAAAAGTACGATGAA  
GAATTCACGCGATACCTGCCTCGTTTGTTCAGCCATCTGGAATTTACTAGTTACACCGGCTCAAGAGGTTAA  
TATGATTTGTTGGTAAGTAATGCAATTCATTTCTGGCTTCAGTTTGTGAGAGACCTCATTATAAGAATCTATTT  
GAGGACAGAAACCTCTGACAAAGTATCTGTGAAAGGTTATTTGCTCAACATGGAATTTAGAGCTGCTGTATGAA  
GAAGCATTTTGAAGATAATTTCTGAGGAGTACATAAGGAGAGATTTGGAAGGATCTGATATTGATACTAGACCGAG  
GCTGCTTGTGATCTGGTACGAGGATTATGCAAGTTTGTGAGGACCTGTGACAGGAATCTTCTGTGGTTATGTT  
AATTCATGCTGCGAGGAATACGCAAAAAATCCATCTGTCAACTGGAACACAAAAGATGCAGCCATCTACCTAGTG  
ACATCTTTGGCATCAAAAGCCCAACACAGAAAGCATGGAATTACACAAGCAATGAACCTGTAAACCTAACTGAG  
TCTTTGTGAATCACATCTCCCTGATTTAAATCAGCTAATGTGAATGAATTTCCCTGCTTTAAAGCTGACGGT  
ATCAAAATATATTATGATTTTGTAGAAATCAAGTGCCAAAAGAACATCTTTTAGTCTCGATTCTCTCTTGATTAT  
CATCTCTCAAGCTGGAAGTATTGTTGTTTCATCTTACGACGCTCATGCTCTTGAACGGCTCTTTACTATGCGAGGG  
CCTAACAAATGCGACTCTCTTACAGCTGACAGAAATCGCACCGTTTGTGAGATTCTGCTAACAAACCTTTTCAAA  
GCTCTCACACTTCTGGCTCTTTCAGAAAATGAATATATTATGAAAGCTATCATGAGAAGTTTTCTCTCTCACAA  
GAAGCCATAATCCCCACATCCCTACTCTCATCACTCAGCTTACACAGAAGCTATTAGCTGTTAGTAAGAACCCA  
AGCAAAACCTCACTTTAATCACTACATGTTTGAAGCAATATGTTTATCCATAAGAATAACTTGCAAAGCTAAACCT  
GCTGCTGTTGTAATTTTGGAGGAGGCTTTGTTTGTGTTTACTGAAATCTTACAAAATGATGTGCAAGAATTT  
ATTCCATACGCTCTTCAAGTGATGCTTTTGCTTCTGGAACACACAAAAATGACATCCGCTCTTCTATATGGCC  
TATTTTCCCTCATCTCCTTCAGCCAGTGCTTTGGGAAAGAACAGGAATATTCCTGCTCTAGTGAGGCTTCTCAA  
GCATTCTTAGAACCGGGTTCAACACAAATAGCAAGTGCTGCAGCTGACAAAATTCCTGGGTTACTAGGTGCTGTT  
CAGAAGCTGATTGCATCCAAAGCAATGACCACCAAGGTTTTATCTCTTAACACAGTATAATAGAGCACAATGCCT  
CCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCACAAACAAAC  
AAGTTTATCAAGAGTTTTTATGCTTTTATTAATTTGTATTGCATAAAATATGGGCACTAGCATCAAGAAATAT  
TTGTAGGTATACACCAAAAAATGTTTGGAAATGTTTTGGAATAATTTCTGAAATTCAGAAAGGATCT  
GGAAATGTAGAGAAAAGATCTGTGCGGTTGGCATAACCAACTTACTAACAGAAATGCCCCCAATGATGGACACT  
GAGTATACCAAACTGTGGACTCCATTATACAGTCTTTGATTGGTCTTTTGAGTTACCCGAAGATGATACCAAT  
CCTGATGAGGAACATTTTATGATACAGGAATACACAGGATATCAGACTGCCTTCTACAGTTGGCATTTGCT  
GGGAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTCACCTGGCAGCTCACTTCACATG  
TGTCTACCGCTGTCCAGGAAGGGTTCCATCAATGGTGAGCACCAGCTGAAATGCAGAAAGCGCTCCAGTATCTC  
CAAGGGTACCTTACGGCAGCGAGTGTGACACTGCTTTAAACTGCAATTTTGTAAATGGGCTAAACAGAGATGTTT  
CCTAGGAATCACAGGCTTCTGAGCACAGCTGCATTAAACAAAGGAAGTTTTCTCTTTGAACTGTGACGA

**FIGURE 719**

MELSDANLQTLTEYLKKTLDPDPAIRRPAAEFLESVEGNQNYPLLLLTLLLEKSQDNVIKVCASVTFKNYIKRNRW  
IVEDEPNKICEADRVAIKANIVHMLSSPEQIQKQLSDAISIIIGREDFPQKWPDLLTEMVNRFSQSGDFHIVINGVL  
RTAHSLFKRYRHEFKSNELWTEIKLVDAFALPLTNLFKATIELCSTHANDASALRILFSSILISKLFYSLNFO  
DLPEFWEGNMETWMNNFHTLLTLDNKKLLQTDDDEEAGLLELLKSQICDAAALYAQKYDEEFQRYLPRFVTAIWNL  
LVTTGQEVKYDLLVSNAIQFLASVCERPHYKNLFEDQNTLTLSICEKVI VNPMEFRAADEEAFEDNSEEYIRRDLE  
GSDIDTRRRACDLVRGLCKFFEGPVTGIFSGYVNSMLQYAKNP SVNWKHKDAAIYLVTSLASKAQTQKHGKITQ  
ANELVNLTEFFVNHLPLDKSANVNEFPVLKADGIKYIMIFRNQVPKEHLLVSIPLLINHLQAGSIVVHTYAAHA  
LERLFTMRGPNNATLFTAAEIAPFVEILLTNLFKALTLPGSSSENEYIMKAIMRSFSLQEAIIPIYIPTLITOLTQ  
KLLAVSKNPSKPHFNHYMFEAICLSIRITCKANPAAVNVFEEALFLVFTAILQNDVQEFIPYVVFQVMSLLLETHK  
NDIPSSYMALFPHLLQPVLWERTGNIPALVRLLQAFLEGRSNTIASAAADKIPGLLGVFQKLIASKANDHQGFYL  
LNSIIEHMPPEVDQYRKQIFILLFQRLQNSKTTKFIKSLVFINLYCIKYGALALQEIFDGIQPKMFGMVLEKI  
IPIEIQKVSNGVEKKICAVGITNLLTECPPMMDTEYTKLWTPLLQSLIGLFELPEDDTPDEEHFIDIEDTPGYQ  
TAFSQLAFAGKKEHDPVGQMVNNPKIHLAQSLSHMLSTACPRVPSMVSTSLNAEALQYLQGYLQAASVLLL

CCGTCGCCGGGGCGGACGGGGCGGGCGGGGAGGATGAGCTGAACTCCCTGCTGATCTGCTGGAGGGCGGCGAGT  
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCAGGGCTACGCCCTGGTGCTGCCCTTCGACGGCGGACTTCGCCAGGG  
AGAAAAACAAGCGCGCGGCCCTGGTGCGCAAGGCCCGGAAACAACAGGCTCTTCAACACAGGAGTGAAGAACGACA  
GACGAGCCAACTCAGGCTGTACTGTGAGCAGCTCAAGCAACTGGTGCCCTGGGCGCCGACGACACCGGCCACA  
CCAGCTGAGCCCTCTGAGAGCGGGCCAAAGTGCACATCAAGAAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA  
TCAAGGAGCAGCTGACGAGGAGCATCGTTTCTGAAGCGCGCCTGGAGCAGCTGTCTGGTGACAGGCTGGAGCG  
GCGTGGCAGCATAGCAGCGGCTCTGCTGTCTCACGGACACTCAGACGAAGAAGTGACACATAGAGGCAATGG  
AGTTTGGCCCTGGTGAGCTGGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCTGCAGAGTGGCA  
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCGCGGCGCTGGGCGGCCCGCCCTCTCGTAGGCCCTGCCCTCT  
GCTCCTTGGCCTGCTGCGCGCCAGCGAGCGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCCCA  
CAGGCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCTGGCACTGCCCGTTGCCGGTCAAG  
GCCTGCCAGCTGCCCTGCCCTTCAGCTGGGCGAGTCCCTTGCAAGGAGGCGAGGCCAGCTTCCACATCCGG  
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTTCTCAGATTCTTAATCATTCCGAAGTATTAACGTCATTGCT  
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCTGGATCCCG  
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGCAAGGCTGTCTGTCCATCCGTCGCTGTCCACTACCTGTCA  
GTCCACATAGGCTCTCGCTGGGACGAAGGGGCTCTGTGAAGGCTGCGGTGAGCAGCTGGGGGAGGCTGGGT  
GGTTAAGTCCCTTCCCACTTCGACAGTGTGCAAACTAGGGCTGGGCTCTCGGGGCGAGGCAGGCCAGCCAGCC  
CAGCGCAGCTGGGCAGCGCTGCTCTGTGGTAGGACTGTACAGCGCACAGCGCGCAGCACTAGACACACCCACT  
ATGTACATGCTCACACATGCGACACACCTGGGCGTCCCGAGGTACATGTTCTGGGGATGATGGCCTTCAGGG  
TCATCTGGCAACAGCCCTGGGCTGTGCTGGATCCCCCTCTAGCTCTGCTCACCAGCCCAACCCAGTAGTCT  
TGCTCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGGCTGGGGTGAATGAGGCTGGTTAAGTTGCAG  
CCGCTGGGTCTCTCGGGGCTTACTCATCTCCCTTTTTAAACAAGCAAAAGTAAATGCTGCATGCCCA  
CAGCCCGGTTAGGGCTCTGGAGCCACCTTAGGAAGGGGCTTCTCATGAGCTCTGTCTGGCGAGCTTCAGCTGG  
CAGAGAGGCTTCCAGAAAAAAGAAAAACCATTTTTAAAAAGAAAGCAAGCCATAAGACTCTCGGCCTAGGGA  
CGTCCGTGTGTGCCCGCTCTGTTTCTGTACAGATTTTGTATTCTATTTCCTAGCTGTGTGTGCGTCTGT  
TTGCTGAGGGGTGGGAGCCACCCAGCGTCTCAGGACCTGTCCCTCCGTACGTCGTCAGAGTGTGCTTGTGTC  
TTGTGTAGGCTTGCCTTCCACACAGCATGTCCCTCGTGGCTCAGGGTGCCCGAGGCTGCCAGCTAGTGTCT  
GTCTCCTCCTCTCTGTGGGCGAGCCCTCCCGGACGCAAGGCTTCTTGAGGCGATGACGACGCGCCCTGTGG  
GTGGCAGCGAGGGGCTGTGACCTGGTCCCACTGTGCCCTCCCCAGTGGCTGGCAGGGGCTGTCTGCTACTA  
GAGAGATGGATTCTCAGCTGTCACTGACTCGAGGCCCTGTCTTCTGGCTAGGCGAGGGTTCCAGGTTTCAGA  
CACTGGCAGCAATGAAGACTGTGCTCGCTGGTGGTGCAGGCCCTGGCAGCAGGAGGCTTGCACCGCCTTTCCT  
TCTTGACGCTCTCTGTCTTGGGGCTGGCCATAGCAGTGCCTGCGCTGCTCTGGTACATCTGTAGCCAAATTC  
CATATCATGGGGAATAATCGTGTCTATTTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG  
GAAGGGGTCCTGTGAACAACACTCTGGCAGCAAACTGCCCCGAGGCTGTAGGGGGCATGGTGGCTGGAGCTGA  
GGGCGATCCGAACGCGTGTGCGGTGGTTGTGAGGAGGCCGTGTGTCATCTCTTCGCGCCCACTGGGGTCAGG  
GGTGCCAGAAAGGAGCTTCCCCGTGCTGCTGAGTGTGTCCCCCAGGCTTCATTTCAAACACCGTGGCACTC  
CAGGCAAGCGGGCGGTGTGTAAGAGCTTGTCTCCCCAGCAGCACTGACAGGGCCCTGAGGTGGTGTGCTGCTG  
CCCTCAATCTTGAAGCAGCAGCTCCCTGCCCCACCTCCAGTGCTGAGGAGCAGTAGGGGCTTCTGCTCATC  
TCTGACCAGCAAGATCCACCGGTGACCACTGGTGGGCCCTCAGGCCACCTCCCGGCGAGCTCAGCTGTGGCTC  
TTAGGGCCGTGGTTCCACGCTGGACTGGGAGGAGCTCTCAGCCACCCGGGGTGTGTTTCAGCTGCCCTCCCTGC  
CATCAGAGCTGGGTGAGGGGTGGCCACTGGTGGGGGGCCGTGCTAGGAGTACACATGCTCCAACCTCCCA  
CTGCTCCTGTCAAGGGGCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCGTCTATAGA  
GAGCAGACAGAAGCAGAACAGAGCCCGGGCTCTGAGCTCTGCTGTGTCCTCCAGCCACACAGCTGCTGCTCT  
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCCCGACCTTATTGGAAGGAGCAGTCCCGCATACAGGATAAC  
CCCCGCAAAACCACATAGCAGACCCCGGCCATCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTCCTCTGCAG  
ACCCCATCTTAGTGGCAGCGTGTCTGGGCTGTGTCCCCGGGTGGTGAACCTGTACCGGCTGTGGCCCTAGG  
GTCCCTGCTGTCTGCCCCGGCCCGTGTGTCTCGCTGGGTGAGGAGGCTCCCCCGTGCCCTGCTCCTCTGT  
CAGGGAAGCTGGGACCCCTCCCACTGCTGTCAGAGGACCTGACCTCGGCGCAGAGGCTGGCCCCAGGCTC

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**FIGURE 720B**

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT  
GCGCTAGAGGGGAAAGGGGCCCCCGGCCACCTGTCCACCGTGTGGCCGTGCTGTGTCCTTATGTCATTGTAAT  
ATAAATACAGATTTTATATCTC



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**FIGURE 721**

MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTLLSLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVVERVRTDSTGSAV  
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS

**FIGURE 722**

[illegible]

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**FIGURE 723**

MQQPFNYYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKRG  
NHSTGLCLLVMMFVVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT  
GKSNSRSMPLWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM  
EGKMMSYCTTGQMWARSSYLGAFFNLTSADHLYVNVSELSLVNFEEQTFGLYKL

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**FIGURE 724**

ACTAAGACCGCAAGGCATTCAATTTCTCCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCCAGAGAGGAG  
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCCGCTGGAG  
ACCGAGCGGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT  
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCGCCCAATCAACATGTGAGTGTGAC  
TTTACAAGAATATGAATTCGAAAAGCAGTTCACAGAGAATGAAGCCATCCAATGGATGCGAGAAAACCTGGAAGAA  
ATCTTTCTCTGTTTTCTGCTCTGTATGCTGCCTTTATATTTCGGTGGTGGGCACCTAATGAATAAACGAGCAAGGTT  
TGAACTCAGGAAGCCATTAGTGCTCTGGTCTCGACCTTGCAGTCTTCAGTATATTCGGTGTCTTTTCCAACTGG  
TGCTTATATGGTGTACATTTTGTATGACCAAGGCCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC  
TGTGAGCAAAATTCGGGCTTATGCATTGTGCTAAGCAAGCACCAGCACTAGGAGATACAATATTCATTATTTCT  
GAGGAAGCAGAAGCTGATCTTCTGTCATCTGGTATCACCACATCAGTGTGCTCTGTACTCTTGGTACTCCTACAA  
AGACATGGTTGCCGGGGAGGTTGGTTCATGACTATGAACATATGGCGTGCACGCCGTGATGACTCTTACTATGC  
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGAAGTTTGCCATGTTTCATCACCTTGTCCAGATCACTCAGATGCT  
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGATGACCAAGTGTCACTCTCACTTTTCAGAACAT  
CTTCTGGTCTCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTCTTTGAGGCTACATCGGCAA  
AATGAGGAAAACAAAGCAAGCTGAATagTGTTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAT  
AATAGACAAAAGAAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAAACAAAACAAAACATGAGCAACACAAA  
ACCCAAGGCAGCTTAGGATAAATAGGTTGATTAAACCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT  
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCTCTTTATCTATCAACTCTAGGACAAGGG  
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGCAACAAAGGCTATTAAACATAGGAAAATATGT  
ATTTACTAAGTGTACATTTCTCTAAGATGAAAGATTTTTACTCTAGAAACTGTGCGAGCACAAACACACAAATC  
CTTTCTAATTTTATGGACACTAAACTGGAGCCCAATAGAAAAAGCAAAAAATGAAAGAGACACAGGGGTGTATCTCTA  
GAACGATAATGCTTTTGCAGAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG  
TCTTAATCATCCTTTATGAAAACAGATGAAAACAACTATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG  
CTAGTGAGTTTGCCAAAACCAAAGGGGTGAATACTTCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC  
CCAGGTCCCATGGGGGCAGCTCCATCCAGAGCACTTCTGATAGTTGAAGTGAATTTCTACTCTTAAGTGAGAT  
ATGAAGTATATCCTTTTGTTCAGTTGCCCGGGCTTTTGAACAGAAGAGTAATAACAGAATTGAAAAGATATAA  
CACTCAACCAAACAATGTGAAAACGGGTCTGTAGTATTTGTAAAAAGGCCCGCCAGGACCACTGTGAGCTGG  
AAAAGGGAGAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCTCC  
CTGTTTGACTTTCACACACTCATAACTTTCCAAATGAAACCCCAAGTATAGCGCATATTTTCGATATTTTTGT  
GAATTCAAAAGGAAATCACAGGGCTGTTTCAAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT  
CCCCAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAACTTCAAGGCAAG  
TTTGGCTGAAAACAGTGTGAAACAAAGGGCCCCATACACTTATCCCTCAAAATTTAAGTGATATGAATAACTGT  
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAGGGACTTTA  
GCTCTGGAACCTCAAAATCAATTTATTAAGAGCCATATTTCTTAAAAAAAAGCTGGATAATATTATCTGTAATA  
TTTCACTCCTTTTACAAGCCAAATACATGTGTCAAGTGTCTAGTATTTCAAGAAGCAATATGTAAAGTTGTTCT  
AATGTGACATAATAGTATTTAATTTGGTTAAGTAGCTTAATGATTAGGCAAACTAGATGAAAAGATTAGGGGCTT  
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACAGACACACAGATGTGGGGTACACTGAATTC  
AAAGCCCAATGAATAGAAACACATTTTCTGGCTAGCAGAAAAAACAACAAACTGTTGTTTCTCTTCTG  
CTTTGAGAGTGTACAGTAAAGGGGATTTTTTCGAATTTTTTATATTTTATGCTTTAATGTGCTGTGCTGT  
ATGAACAGAGCTGACTGCTTTCTGTCTGACAGATGGCAAGGGCTTTTTTCAGCATCTGCTTTATGTGTGGAATTT  
AAAAAGATAAAGTTTTATTCATTCTGAAAAAATAAAAAA

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**FIGURE 725**

MNMSVLTLQEYEFKQFNENEAIQWMQENWKKSFIFSALYAAFIFGGRHLMNKRAKFELRKPLVLWSLTLAVFSI  
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKEWAYAFVLKAPLGDITIFIILRKQKLIFLHWYHHITVLL  
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC  
HSHFQNIWFSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

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FIGURE 726

GACGTTTCGCGCCAATTTTCGGTTGGCGGCCACAGTCCACGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC  
CTCTGAGGCCCGCAAGCGCGGCCGACGGCCCTCGGCAGCGCATGSCAC TGAAGGACTACGCGCTAGAGAAGGAAA  
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACCTCGGGAAGAAGCAGTTCAAGTATGGGAACCACT  
TGGTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCGAGT  
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAAGAGCTGCTGCCCTC  
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCTTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC  
GGAGTCGGGACCTTGGGATGGTCCGAAGCCCCAGAACCAGTACCTGCTGAACCTCATGCGCAGATTTGAGCTGT  
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA  
CTGTGCGTGGAAATCGTCACTCTGTCTCTGAAGTCAAACCAAGATGGTGGTGGCCACTTACACTTGTGACCACT  
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCCTCTGATCATGTGCCCAAGCCAGGAGTGCC  
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTTCATAAATTCAGGAGATGAAGA  
TGCAAGAACATAGTGATCAGGTGCTGTGGGAAATATCCCTCGTAGTATCACGGTGCTGGTAGAAGGAGAGAACA  
CAAGGATTGCCAGCCTGGAGACCAGTCAAGCTCACTGGTATTTTCTTGCCAACTCTGCGCAC TGGGTTCCGAC  
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG  
ATGAGTCTGGGGCTGGAGAGCTACCAAGGGAGGAGCTGAGGCAAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG  
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACCTGCTGCTCTGCTAGTCTGGGGGTG  
TGGACCACTCTCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA  
AGTCTCAGTCTCTGTATACATTGATCGACTGGCGCTCGCAGCCAGTACACAACAGGCGGGGCTCCTCAGGAG  
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAATGACCTTAGAGGGTGGGGCCCTGGTGTCTGG  
CTGACCAGGGTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCGCAGCCGACAGCCATCCACGAGGTCA  
TGGAGCAGCAGACCATCTCCATTGCAAGGCCGGCAATTCACCAACACTCAATGCCCGCTGCTCCATCTGGCTG  
CCGCCAACCTCTGCTACGGGCGCTACAACCTCTGCCGACGCTGGAGCAGAACATACAGCTACCTGCTGCACTGC  
TCTCCCGGTTTACCTCTCTGGCTGATTGAGGACCGGCCGACCGAGACAATGACCTACGGTTGGCCAGCACA  
TCACCTATGTGCACAGCACAGCCGGCAGCCCCCTCCAGTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT  
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTGG  
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCGGAACCTGCTGGCTATCCTGCGCC  
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAGAAGATGTGAATGAAGCCATCAGGCTAA  
TGGAGATGTCAAAGGACTCTCTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT  
TTGCCACCCTCCGTGAACCTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGGCTGTGTATCTC  
GTGGCTTACACCCGCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT  
CCCGGACACGATCACTTTTGTCTGATTTCCAGCCTGCTTGAACCCCTGGGCTCTCTTGTTCCTGCTGGCCTGC  
CCCTTGGGAAGGGCAGTGATGCTTTGAGGGGAAGGAGGAGCCCTCTTCTCCATGCTGCACTTACTCTTTT  
TGCTAATAAAAGTGTGTGATGATGTC

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**FIGURE 727**

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK  
LFADAVQELLPOYKEREVVNKDVLVDVYIEHRLMMEQSRDPGMVRSFQNPQYPAELMRRFELYFQGPSSSKPRVIR  
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCQCGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR  
GSRFIKFOEMKMQEHSDQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPIILRTGFRQVVQGLLSEYLEA  
HRIVKMNKSEDDDESAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLVGGVDQSPRGMKIRGNI  
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAÄVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM  
AEADRTAIHEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEONIQLPAALLSRFDLLWLIQDRP  
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY  
TSARTLLAILRLSTALARLMVDVVEKEDVNEAIRLMEMSKDSLLGDKQTARTQRPADVIFATVRELVSGGRSV  
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

## FIGURE 728

GC GGAGCGAGAGGGCTGAGAGAGT CGGAGACACTATCCGCTTCCATCCGTCGGCGAGACCC TGCCGGAGCCGCTGC  
CGCTATGGATGATCGAGAGGATCTGGTGTACCAGCGGAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT  
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA  
TAAGAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCAITGAACAGAAAGAAGAAACAAAGGG  
AGGAGAAGACAAGCTAAAAATGATTCGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA  
CATTTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT  
GAAAGGGGACTACCCAGGTATCTGGCAGAATTTGCCACAGGAAACGACAGGAAGGAGGCTGCGGAGAACAGCCT  
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAACCTTCACCAACGCATCCTATTTCGCTTAGGTCTTGC  
TCTCAATTTTTCCGTATTCTACTACGAAATCTTAATTCCCCTGACCGTGCCCTGCAGGTTGGCAAAAGCAGCTTT  
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT  
ACGTGATAATCTGACACTATGGACTTCAGACATGACAGGCTGACGGTGAAGAGCAGAAATAAGAAGCGCTGCAGGA  
CGTGGAAGACGAAAAATCAGTGAGACATATAAGCCAACAAGAGAAACCATCTCTGACCACCCCTCCTCCCATCCCA  
CCCTTTGGAAACTCCCCATTGTCTACTGAGAACCAACCAATCTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC  
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG  
GATTTTACTGGTCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTCAGCATTACTGT  
GTCGTCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAATGGAAATTACATTTGAAAGCCATTAGACTTATAG  
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCATTTTTCTAATT  
GTTTAACTGTGTTTTATACCAGTGTTTGCAAGTAATTGGGTGTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA  
GGGACTTCGTTGTAATGGTTTTGCTGTAAAAAATGTTTCCAACCTCCGCTGAAATGTTGCTGAAAGCATGGTGCT  
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCCCTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG  
GTGGTATGGAAGCCTGCATGCCTGTTCAATTCTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC  
TCACTCCTCCCTCCTTCGCTCGCTCAACCTCTTTTGTTCAGTATGTGTAACCTGAAGCTAATTTGTACTACTGG  
ATATCTGACTGGAGCCAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAACCTT  
AAATAAAACAAACCTAAATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 729**

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG  
EDKLMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYKMGDYHRYLAEFATGNDRKEAAENSLV  
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLR  
DNLTLTWTSMDMQDGEEQNKEALQDVEDENQ

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FIGURE 730

GGCAGCAGGGGCGGCGGAGCCGACTCGTCGCGGCCGAGGCGCACGCGGTCGCGCGCGGCGTCAGTCTGGGATTGG  
CCGGCCCCGCGACTTCTCCGCCCCCTGCCAATCGCGGGGAGCAGTTCGTGGGTTTTTCGGCTCTCCCGCGTC  
GCTAAGGAGCGAGCGGGCTCGCGGCCAGACCCGAGTTCTCGGTGCGCTCAGCGGGCCCGCAGCTAGGAGGCGCG  
GCTCCGCCCCCGCTAC**CTGA**GGGCCCCGGAAGCCCTTCTGCTCTGTGCTCTTTGGGGCTGGTGAGCTGCTGG  
CCGTGGCGGGTGGCAGGGGCCGAGCAGGATTCTTCTAACAGAGAAAATGCCATTGAGGATGAAGAGGAGGAGG  
AGGAGGAAGATGATGATGAGGAAGAAGACGACTTGGAGTTAAGGAAGAAAATGGAGTCTTGGTCTTAATGATG  
CAAACTTTGATAATTTTGGTGTGACAAAAGACACAGTGTCTGCGAGTTTATGCTCCATGGTGTGGACATTGCA  
AGCAGTTTGTCTCGGAATATGAAAAAATTGCCAACATATTAAAGGATAAAGATCTCCCATCTCTGTGCCAAGA  
TCGATGCAACCTCAGCGTCTGTGTGGCCAGCAGGTTTGTGTGTGAGTGGCTACCCACCACATCAAGATCTTTAAGA  
AGGGGAGGCTGTAGACTACGAGGGCTCCAGAACCAGGAAGAAATTTGCCAAGGTGAGAGAAGTCTCCCGAGC  
CCGACTGGAGCGCTCCACCAGAAATCAGCGTTGTGTGACCAAAGAGAACTTTGATGAAGTTGTGAATGATGCAG  
ATATCATTCTGGTGGAGTTTTATGCCCATGGTGTGGACACTGCAAGAACTTGGCCCCGAGTATGAGAAGGCCG  
CCAAGGAGCTCAGCAAGCGTTCTCTCCAATTCCTCGCAAAGTTCGACGCCACCGCAGAAACAGACCTTGGCCA  
AGAGGTTTGTATGTCCTGTGGTATCCCAACCTGAAAAATTTCCGCAAAGGAGGCGCTTATGACTACAACGGCCAC  
GAGAAAAATATGGAATCGTGATTACATGATCGAGCAGTCCGGGCTCCCTCCAAGGAGATTCTGACCTGAAAGC  
AGGTCCAGGAGTTCTGAAGGATGGAGACGATGTATCATCATCGGGTCTTTAAGGGGAGAGTGACCCAGCCT  
ACCAAGCAATACAGGATCGCGCTAACAACTGAGAGAAGATTACAAATTTACCACACTTTCAGCACAGAAATAG  
CAAACTTCTTGAAAGTCTCCAGGGGAGTTGGTTGTAATGCAGCCTGAGAAATCCAGTCCAAGTATGAGCCCC  
GGAGCCACATGATGGACGTCCAGGGCTCCACCCAGGACTCGGCCATCAAGGACTTCGTGCTGAAGTACGCCCTGC  
CCCTGGTTGGCCACCGCAAGGTGTCAAACGATGCTAAGCGCTACACCAGGCGCCCCCTGGTGGTCTGCTACTACA  
GTGTGACTTTCAGCTTTGATTACAGAGCTGCAACTCAGTTTTGGCGGAGCAAAAGTCTAGAGGTCGCCAAGGACT  
TCCCTGAGTACACCTTTGCCATTGCGGACGAAAGAGGACTATGCTGGGGAGGTGAAGGACCTGGGGCTCAGCGAGA  
GTGGGGAGGATGTCAATGCCGCCATCTGGACGAGAGTGGGAAGAAGTTCCGCATGGAGCCAGAGGAGTTTGACT  
CTGACACCTCCGCGAGTTTGTCACTGCTTCAAAAAGGAAACTGAAGCCAGTCATCAAAATCCAGCCAGTG  
CCAAGAACAAAGGGACCCGCTCAAGGTCTGTGGTGGGAAAGACCTTTGACTCCATTGTGATGGACCCCAAGAAG  
ACGTCCTCATCGAGTTCTACGCCACATGGTGGCGGCACTGCAAGCAGCTAGAGCCCGTGTACAAACAGCTGGCCA  
AGAAGTACAAGGGCCAAAGGGCGCTGGTCACTCGCCAAGATGGAGCCACTGCCAACGACGTCGCCAGCGACCGCT  
ATAAGGTGGAGGGCTTCCCCACCATCTACTTCGCCCCAGTGGGGACAAAAAGAACCCAGTTAAATTTGAGGGT  
GAGACAGAGATCTGGAGCAATTTGAGCAAGTTTATAGAAGAACATGCCACAAACTGAGCAGGACCAAGGAAGAGC  
TT**TGA**AGGCGCTGAGGTCTGCGGAAGGTGGGAGGAGGCAGACACCTCGCTGGCCCATGGTGGGGCGTCCACGCC  
GAGGCCGGCAACAAACGACAGTATCTCGGATTCCTTTTTTTTTTTTTTAAATTTTTTATACTTTGGTGTTTAC  
TTCATGCTCTGAATACTGAATAACCATGAATGACTGAATAGTTTGTAGTCAGAGGATACATCTATT  
TTTATCATTATTTGGGGTTTGAAAAATTTTTTTTACACCTTCTAATTTCTTTATTCTCAAAGCAGATAATTCT  
TCTGTGTGAAGATGTTTCTTTTTTAAATTTAAGGTTTAAAAATTCCTTTGCCAAATCATGTTGATTTTGCTCTTT  
GCTTTTTCGTTGTCTGAGAAATGGTGGCGTAGATTGGCTTCTGGTAGTGTTTCTGTGATTGCTCTCTGTTGAGC  
ACAAAGTGAGAGCTGCCACTGAGCAGCCCTGCCAGGGGTGCTGTTTCAGGCTGGGCATCGCCAGGGCGGCTCCCT  
GCAAAACCAAGGGCTGGGGCAAGGGGCGATGATCCAGGGTCCCCAGGGTGGGCTCAGCTCCAGGAGAGGGCAC  
CCAGCTGGCAGCCCACTCTTTGAGAGCCCCAGTGGCGGAGCAGAAAGACCTTGACCCAGAGGCAGATACTG  
CGGGTGGTAGAAAAGGTAGAGTAGGCTGTGGCAATGGAAATAAACACGATTAAAAACGTTAAAAA  
AAAAA

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**FIGURE 731**

MRPRKAFLLLLLLGLVQLLAVAGAEGPDESSNRENAIEDEEEEEEDDDEEDDLEVKEENGVLVLNDANFDFN  
VADKDTVLLLEFYAPWCGHCKQFAPEYEKIANILKDKDPPPIPAKIDATSASVLASRFDVSGYPTIKILKKGQAVD  
YEGSRTQEEIVAKVREVSQPDWTPPEVTLVLTKENFDEVVNDADIIILVEFYAPWCGHCKKLAPEYEKAAKELSK  
RSPPIPLAKVDATAETDLAKRFDVSGYPTLKIFRKGRPYDNGPREKYGIVDYMIEQSGPPSKEILTLLKQVQEFLL  
KDGDDVIIIGVFKGESDPAYQQYQDAANNLREDYKFHHTFSTEIAKFLKVSQGGQLVVMQPEKQSKYEPRSHMMD  
VQGSTQDSAIKDFVLKYALPLVGHKRVSNDAKRYTRRPLVVVYYSVDFSFYRAATQFWRSKVLEVAKDFPEYTF  
AIADDEEDYAGEVKDLGLSESGEDVNAAIILDESGKKFAMEPEEFDSDLREFVTAFAKKGKLPVIKSPVPKNNKG  
PVKVVVGKTFDSIVMDPKKDVLEFYAPWCGHCKQLEPVYNSLAKKYKGQGLVIAKMDATANDVPDRYKVEGF  
PTIYFAPSGDKKNPVKFEGGDRDLEHLSKFIIEHATKLSRTKEEL

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**FIGURE 732**

AGGTTCTCTTACATCGACCGCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGCTCTCCGCCATCAG  
CTCGGCAGTCGCGAAGCAGCAACCATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC  
AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCGATGGCCAGATGCCAAGTGACAAGACCATT  
GGGGGAGGAGATGATTCTTCAACACCTTCTTCAGTGAGACGGGGCTGGCAAGCATGTGCCCCGGGCACTGTTT  
GTAGACTTGGAAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT  
ATCACAGGCAAAAGAAGTGTGCCAATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC  
GTGTTGGACCGAATTGCAAGCTGGCCGACCACTGCACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT  
GGGGGAACCTGGTTCTGGGTTACCTCGCTGCTCATGGAACTGCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG  
GAGTTCTCTATTACCCGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCTCCACCCAC  
ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAAATGAGGCCATCTATGACATCTGTCGTAGAAAACCTC  
GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATGTGTCTCCATCACTGCTTCCTG  
AGATTGTGAGGACCTGAATGTTGACCTGACAGAAATCCAGACCAACCTGGTGCCCTATCCCCGCATCCACTTC  
CCTCTGGCCACATATGCCCTGTCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC  
AATGCTTGCTTTGAGCCAGCAACCAAGATGGTGAATGTGACCCCTCGCCATGGTAAATACATGGCTTGCTGCCTG  
TTGTACCGTGGTGACGTGGTTCCCAAAGATGCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG  
TTTGTGGATTGGTGCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACCTGGTGCCTGGTGGAGAC  
CTGGCCAAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC  
CACAAATTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG  
TTTTACAGAGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA  
GAGGGTGAGGAAGAGGAGAGGAATACTAAAGTAAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC  
TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC  
TGACCTATGCTCTAAAAACATGAATGCTTTGTTACAGACCAAGCTGTCCATTCTGTGATGGGTTTTGAATAAAG  
TATTCCTGCTCTAAAAA

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**FIGURE 733**

MRECISIHVGQAGVQIGNACWELCYLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPQLITGKEDAANNYARGHYTTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGTGS GFT  
SLLMERLSVDYGKSKLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLIGQIVSSITASLRFDGALNVDLTFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGYMACCLLYRGDVVPKDVNAAIATIKRTIQFVDWCPTGFKVGINYPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGE GEEGEE  
Y

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FIGURE 734

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCCTCGCCATCAG  
CTCGGCAGTCGCGAAGCAGCAACCAATGCGTGAGTGCACTCCATCCACGTTGGCCAGGCTGGTGCCAGATTGGC  
AATGCCTGTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT  
GGGGGAGGAGATGATTCTTCAACACCTTCTTCAGTGAGACGGGGGCTGGCAAGCATGTGCCCCGGGCAGTGT  
GTAGACTTGGAAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACT  
ATCACAGGCAAAAGAGTGTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC  
GTGTTGGACCGAATTCGCAAGCTGGCCGACCCAGTGCACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTGGT  
GGGGGAAGTGGTTCTGGGTTCACTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG  
GAGTTCTCTATTACCCGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCAC  
ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAAACCTC  
GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATGTGTCTCCATCACTGCTTCCCTG  
AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAAATCCAGACCAACCTGGTGGCCCTATCCCCGCATCCACTTC  
CCTCTGGCCACATATGCCCCTGTCACTCTGCTGAGAAAGCCTACCATGAACAGCTTCTGTAGCAGAGATCACC  
AATGCTTGCTTTGAGCCAGCCAACAGATGGTGAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG  
TTGTACCGTGGTGACGTGGTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG  
TTTGTGGATTGGTGCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCAGTGGTGCCTGGTGGAGAC  
CTGGCCAAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCCTGGGCTCGCCTGGAC  
CACAAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG  
TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGGGATTCTGTGAAGGA  
GAGGGTGAGGAAGAAGGAGAGGAATACTAAAGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC  
TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC  
TGACCTATGCTCTAAAACATGAATGCTTTGTTACAGACCCAAGCTGTCCATTCTGTGATGGGTTTGAATAAAG  
TATTCCTGTCTTAAAAAAAAAAAAAA

**FIGURE 735**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLIGQIVSSITASLRFDGALNVDLTFQINLVPYPRTHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTATAEAWARLDHKFDLMYAKRAFVHWYVVGEGMEEGEFSEAREDMAALEKDYEVEVGVDSEGESEEEEE  
Y

GAGGTTGTTCCCTTAGCTATGGAAACTCTATAAGAGAGATCCAGCTTGCCCTCCTCTTGAGCAGTCAAGCAACAGGG  
TCCCGCTCTTGACACCTCAGCCCTCTACAGAGCTGAGAGAAGATAAACCGTTGCTGGGGCTGGCCCTGACTACAC  
AGCTCGC**TTCG**CAGCAGCCCTCTCAATTACCATAATCCCCAGATCTACTGGGTGGACAGCATGCCAGCTCTCCCTGT  
GGCCCCCTCAGGCACAGTCTCTCCCTGTCCAACCTGTCTGGCCCAAGAGCCCTGTGTCAAAGGGAGCCACCACCCAC  
ACGCCACCGCCACCACTACCCACTCCGCGCCCTCGCCGCCACCACTGCCCTCCACTACCGCTGCCACCCCTGAAGA  
GAGAGGAAACACAGACAGCAGCGCTGTGTCTCTTGTGATGTTTTCATGGTTCTGGTGTCTGGTAGGTTGGG  
CCTGGGGATGTTTCAGCTCTTCCACTACAGAAAGAGCTGGCAGACCTCCGAGAGTCTACCCAGCAAGTGACACA  
AGCATCATCTTTGGAGAACCAATAGGCCCCCGACTCCACCCCTGAAAAAAGGAGCTGAGGAAAGTGGCCCA  
TTTAAACCGCAAGTCCCACTCAAGGTCCATCGCTCTGGAATGGGAAGACCATGGAATTTCTCGTCTTTCTGG  
AGTGAAGATATAAGAAAGGGTGCCCTGTGTGATCAATGAACCTGGGCTGTACTTGTGATATCCCAAGATATACTTCG  
GGGTCAATCTTGCAACAGCTCCCCCTGAGCCCAAGGTCTACATAGGAAAGCTATAGTATCCCCAGATCTCGT  
GATGATGGAGGGAAAGATGATGAGCTACGTCATCTGGGCAATCTGGGCCCGCAGCAGCTACCTGGGGGAGT  
GTTCAATCTTACCAGTGCTGATCATTTATATGTCAACGTATCTGAGCTCTCTCTGGTCAATTTTGAAGAAATCTCA  
GCGAGTTTTTCGGCTTATATAAGCTCT**TAA**GAGCAAGCATTTGGGATCTTCCATTAGATCTTTCTTGACAGCA  
CACGAATTTGTTATTCAGTAGGGCTCTCTTACATGCAATTTAGGTTCAAGTAAAGACATGAACCAAGTGGAC  
CTGTGAGACACAGAGGTTCAAAATGTCTGTAGCTCTCAACTACCACTAATGTTTATGAGCCAGCAAGTGGAGAA  
TATGACCGGAAGAACATAGAACTCTGGGCTGCCATGTGAAGAGGAGCAAGCATGAAAAAGCAGCTACCAAGTGTCT  
TACACTATCTTTAGTGGCTGAGAGTATTTAGGCGAGTTGAAAGGACACCTTTTAACCTACCTCTCAAGGTGGGC  
CTGTGCTACCTCAAGGGGAGCTTTCTTCAGATCATGGTTGTACCTGAGGATTTAAGGATGGAAAGGAAAGAC  
TAGAGGCTTGCATATAAGCTCAAGAGGCTGAAGAGGCCAATGCCCACTGGCAGCATCTCACTCTTAATGG  
ATATCTGAGCCATCGGTGAAACTAACAGATAAGCAAGAGAGATGTTTTGGGGACTCATTTCATCTTCAACACAG  
CATGTGATTTCCAGTGCAATGTAGGGGGGTGTGTGTGTGTGTGTGTGTGTGTGTATGATGATCAAGAGAGA  
ATGTAGATATTTGAAGTACATATAGGAAATATGGTGTGATTTGGTCAATTTGGTCAAGTTTGAATGCTCTTGACAA  
CAACTCTAATAGTGCTTAAAAATCATTTGATTGTCAGCTACTAATGATGTTTTTCCATAATAATAATAATATTAT  
GTAGATGTGCATTTTGTGAAATGAAACATGTATATAAAAGATATATGTTAGGATACAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



**FIGURE 737**

MQQPFNYYPQIYWVDSSASSPWAPPGTIVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKRG  
NHSTGLCLLMFFMVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASLEKQIGHSPPPPEKKELRKVAHLT  
GKSNSRSMPLWEDTYGIVLLSGVKYKGGVLINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYFQDLVMM  
EGKMMSYCTTGQMWARSYLGAVFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL

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**FIGURE 738**

GTAGATAGTCAGATGCTCTTTTGAAAAATGTTTTTCGGTGTGGAATATTAACCCAATCTTTGATAACTCTTCCAGA  
ACCTTCGGCTCGCGTGCTTCTGAGCTGCTGTGGATGGCCTCGGCTCTCTGGACTGTCTTCCGAGTAGGATGTCA  
CTGAGATCCCTCAAATGGAGGCTCCTGCTGCTGTCACTCCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCC  
CACTACAATGTGATAGAACGCGTGAACCTGGATGTACTTCTATGAGTATGAGCCGATTACAGACAAGACTTTCAC  
TTCACACTTCGAGAGCATTCAAACCTGCTCTCATCAAAATCCATTTCTGGTCATTCTGGTGACCTCCCACCCCTTCA  
GATGTGAAAGCCAGGCAGGCCATTAGAGTTACTTGGGGTGAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACA  
TTTTTCTTATTAGGCCAAGAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCCCTTAGAGGATGAACACCTTCTT  
TATGGTGACATAATCCGACAAGATTTTTTAGACACATATAATAACCTGACCTTGAAAACCATTTATGGCATTTCAGG  
TGGGTAACCTGAGTTTTGCCCAATGCCAAGTACGTAATGAAGACAGACACTGATGTTTTTCATCAATACTGGCAAT  
TTAGTGAAGTATCTTTTAAACCTAAACCACTCAGAGAAGTTTTTCACAGGTTATCCCTTAATTGATAATTATTC  
TATAGAGGATTTTACCAAAAACCCATATTTCTTACCAGGAGTATCCTTTCAAGGTGTTCCCTCCATACTGCAGT  
GGGTTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGATGGGTACAGTAAAACCCATCAAG  
TTTGAAGATGTTTATGTGCGGATCTGTTTGAATTTATTTAAAGTGAACATTTCATATTCAGAGAAGACACAAATCTT  
TTCTTTCTATATAGAATCCATTGGATGTCTGTCAACTGAGACGTGTGATTGCAGCCCCATGGCTTTTCTTCCAAG  
GAGATCATCACTTTTTGGCAGGTCTGCTAAGGAACACCACATGCCATTATTAACCTTCACATTTACAAAAAGCC  
TAGAAGGACAGGATACTTTGTGAAAAGTGTTAAATAAAGTAGGTACTGTGAAAAATTCATGGGGAGGTCAGTGTG  
CTGGCTTACACTGAACTGAACTCATGAAAAACCCAGACTGGAGACTGGAGGGTTACACTTGTGATTTATTAGTC  
AGGCCCTTCAAAGATGATATGTGGAGGAATTAATATAAAGGAATTGGAGGTTTTTGCTAAAGAAATTAATAGGA  
CCAAACAATTTGGACATGTCATTCTGTAGACTAGAATTTCTTAAAAGGGTGTTACTGAATTATAAGCTCACTAGG  
CTGTAAAAAACAAAACATGTAGAGTTTATTTATTGAACAATGTAGTCACTTGAAGGTTTTGTGTATATCTTATG  
TGGATTACCAATTTAAAAATATATGTAGTCTGTGTCAAAAACTTCTTCACTGAAGTTATACTGAACAAAATTT  
TACCTGTTTTTGGTCATTATATAAGTACTTCAAGATGTTGCAGTATTTACAGTTATTTATTTTAAAATTACTT  
CAACTTTGTGTTTTTAAATGTTTTGACGATTTCAATACAAGATAAAAAGGATAGTGAATCATTCTTTACATGCAA  
ACATTTTCCAGTTACTTAACTGATCAGTTTATTATTGATACATCACTCCATTAATGTAAGTCAATAGGTCATTAT  
TGCACATCAGTAATCTTTGGACTTTGTTAAATATTTTACTGTGGTAATATAGAGAAGAAATTAAGCAAAAAA  
AAAAAAAAAAAAAAAAAAAA

**FIGURE 739**

MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWMYFYEYEPYRQDFHFTLREHSNCSH  
QNPFLVILVTSHPSPVKARQAIRVTWGEKKSWWGYEVLTFLLGQEAEEKDKMLALSLEDEHLLYGDIIRQDFLD  
TYNNLTLLKTIMAFRWVTEFCPNAKYVMKTDTDVFINTGNLVKYLNLNLHSEKFFFTGYPLIDNYSYRGFYQKTHIS  
YQEYPFKVFPYPYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLKVNIHIPEDTNLFFLYRIHLDVC  
QLRRVIAAHGFSSKEIITFWQVMLRNTTCHY

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FIGURE 740A

ATTTCCGCCAGCAGGAGCGCGCGGTAGATGCGGTGCTTTTAGGAGCTCCGTCCGACAGAACGGTTGGGCCCTTG  
CCGGCTCTGCGTATGTCGCGACAGAGCACCTGTACAGCTTCTTCCCAAGTCTCCGGCGCTGAGTGATGCCAAC  
AAGGCCTCGGCCAGGCGCTCAGCGCAAGGCGGCCGTGCCCGCCGCTGCCCGGGGCGCTCTCTTCCCCAGGCGGG  
GATCGCGCTCGAGCGAGGCTGGCGCTGGGCCCGAGGCCCTTGGCGCGATCCCGCTACCGCCCAAGGCGGAAGAC  
CTCAACGGAGGGCTGCGGAGATCGGTAGCGCTGTGCCCCACCAGTTGTGACTTCTCACCAGGAGATTGGTT  
TGGCGCAAGATGGAGGCTTACCCCTGGTGGCCTTGTCTGGTTTACAAACCCCTTTGATGGAACATTTCATCCCG  
GAGAAAGGAAATCAGTCCGTGTCTCATGTACAGTTTTTTGATGACAGCCCAACAGGGGCTGGGTTAGGAAAGG  
CTTTTAAAGCCATATACAGGTTCAAAATCAAAGGAAGCCAGAAGGAGGTCATTTTTACAGTGCAAAGCCTGAA  
ATACTGAGAGCAATGCAACGTGCAGATGAAGCCTTAAATAAAGACAAGATTAAAGAGGCTTGAATTGGCAGTTGT  
GATGAGCCCTCAGAGCCAGGAAGGGAAGAAGATGAGGTGAGGTAGGCACAACTTACGTAACAGATAAAGTGAAGAT  
GATAATGAAATTGAGAGTGAAGAGGAAGTACAGCCTAAGACACAAGGATCTAGGCGAAGTAGCCGCCAAATAAA  
AAACGAAGGGTCATATCAGATTCTGAGAGTGACATTGGTGCTCTGATGTGGAATTTAAGCCAGACACTAAGGAG  
GAAGGAAGCAGTGATGAAATAAGCAGTGGAGTGGGGATAGTGAGAGTGAAGGCCCTGAACAGCCCTGTCAAAGTT  
GCTCGAAGCGGAAGAGAATGGTGACTGGAATGGCTCTCTTAAAGGAAAAGCTCTAGGAAGAAACGCCCTCA  
GCCACCAACAGCACTAGCATTCTCATCAGAAACCAAGATACTTTGAGAGCTTCTCTGCCCTCAAATTTCT  
GAATCCCAAGCCACGTTAGTGGAGGGTGGTGATGACAGTAGTCGCCCTACTGTTTGGTATCATGAAACTTTAGAA  
TGGCTTAAGGAGGAAAAGAGAGAGATGAGCACAGGAGGAGGCCGTGATCACCCGATTTTGATGCATCTACACT  
TATGTGCTGAGGATTCTCTCAATCTTGTTACTCTGGGATGAGGAAGTGGTGCGAGATTAAGTCTCAGAACTTT  
GATCTTGTCATCTGTTACAAGTGGGAAATTTTATGAGCTGTACCACATGGATGCTCTTATTGGAGTCAGTGAA  
CTGGGGCTGTTATTCATGAAGGCAACTGGGCCCATCTGGCTTCTCTGAATTTGCAATTTGGCCGTTATTCAGAT  
TCCCTGTGTCAGAAGGGCTATAAAGTAGCACGAGTGGAAACAGACTGAGACTCCAGAAATGATGGAGGACAGATG  
AGAAAGATGGCACATATATCCAAGTATGATAGAGTGGTGAGGAGGAGATCTGTAGGATCATTACCAAGGGTACA  
CAGACTTACAGTGTGCTGGAAGGTTGATCCCTCTGAGAACTACAGTAAGTATCTCTTAGCTCAAAGAAAAGAG  
GAAGATCTTCTGGCCATCTCTGTCATATGGTGCTGCTTTGTTGATCTTACCTAGGCAAGTTTTTATCAGGT  
CAGTTTTACAGATGATCGCCATTGTTTCAGATTTAGGACTCTAGTGGCACACTATCCCCAGTACAAGTTTTATT  
GAAAAAGGAAATCTCTCAAAGGAACTAAAACAATTTCAAAGAGTTCATTGCTCTCTCTTCAAGAGGCTCTG  
ATACCCCGCTCCCAGTTTTGGGATGCATCCAAAATTTGAGAACTCTCCTTGAGGAAGAAATTTTATAGGAAAAG  
CTAAGTGATGGCATTGGGGTGATGTTACCCAGGTGCTTAAAGGTATGACTTCAGAGTCTGATTCCATTTGGGTG  
ACACCAGGAGAGAAAAGTGAATTTGGCCCTCTCTGCTTAGGTGGTTGTGCTCTTACCTTGCACAAATGCTCTATT  
GATCAGGAGCTTTTTATCAATGGCTAATTTTGAAGAATATATTCCTTGGATTCTGACACAGTCAGCACTACAAGA  
TCTGGTGCTATCTTCCAAACCTCTATCAACGAATGGTGCTAGATGTCAGTGACATTAACAACTTTGGAGATTTTT  
CTGAATGGAACAAATGGTTTCTAGTGAAGAACCTCTACTAGAGGGTTGATACTTGGCATACTCTTTTGGTAA  
CGGCTCTTAAAGCAATGGCTTTTGCCCCACTCTGTAAACCATTATGCTATTATGATGCTCTAGATGCCATAGAA  
GACCTCATGTTTGTGCTGACAAAATCTCCGAAGTTGTAGAGCTTCAAAGAGGCTCCAGATCTTGAGAGGCTA  
CTCAGTAAATCTATAATTTGGGCTCTCCCTCGAAGAGTCAGAACCCAGACAGCAGGGCTATAATGTATGAA  
GAAACTACATACAGCAAGAAGAATATTGATTTCTTTCTGCTCTGGAAGGATTCAAAGTAATGTGTAATAAT  
ATAGGGATCATGGAAGAAGTTGCTGATGGTTTTAAGTCTAAATCTTAAAGCAGGTCATCTCTCGACAGAAAA  
AATCTCGAAGGTGTTTTCTCGATTGTAGTGAAGATTGAACCGATGGGATACAGCCTTTGACATGAAAAGGCT  
CGAAAGACTGGACTTATTACTCCAAAGCAGGCTTTGACTCTGATTATGACCAAGCTCTTGCTGACATAAGAGAA  
AATGAACAGAGCCTCTCGAATACCTAGAGAAACAGCGCAACAGAATTGGCTGTAGGACCATGCTATTGGGGG  
CTTGTAGGAACCGTTACAGCTGCTGAATTTCTGAGAATTTTACCACCTCGCAATTTGGCAGAAGAAATACGAGTTG  
AAATCTACCAAGAGGGCTGTAAACGATACTGGACCAAACTATTGAAAAGAGTTGGCTATCTCATAAATGCT  
GAAGAACGGAGGGATGTATCATTGAAGGACTGCATGCGGCGACTGTTCTATAACTTTGATAAAAAATTACAAGGAG  
TGGCAGTCTGCTGTAGAGTGATTCGCAGTGTGGATGTTTTACTGTGCTTGCTAACTATAGTCAGGGGGTGAT  
GGTCTATGTGTGCGCCAGTAATCTGTGTGCGGAAGATACCCCCCTTCTTAGAGCTTAAAGGATACAGCCAT  
CCTTGCATTACGAAGACTTTTTTTGGAGATGATTTTATCTCAATGACATTTCAATAGGCTGTGAGGAAGGGAG  
CAGGAAAAATGGCAAAGCCTATTGTGTGCTTGTACTGGACCAAAATATGGGGGGCAAGTCTACGCTTATGAGACAG  
GCTGCTTATTAGCTGTAATGGCCAGATGGGTTGTACTGCTCTGTAAGTGTGACAGGCTCACACCAATTGAT

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**FIGURE 740B**

AGAGTGTTTACTAGACTTGGTGCCTCAGACAGAATAATGTCAGGTGAAAGTACATTTTTTGTGAATTAAGTGAA  
ACTGCCAGCATACTCATGCATGCAACAGCACATTCTCTGGTGCTTGTGGATGAATTAGGAAGAGGTACTGCAACA  
TTTGATGGGACGGCAATAGCAAATGCAGTTGTTAAAGAACTTGCTGAGACTATAAAATGTCGTACATTATTTTCA  
ACTCACTACCATTTCATTAGTAGAAGATTATTCTCAAAATGTTGCTGTGCGCCTAGGACATATGGCATGCATGGTA  
GAAAATGAATGTGAAGACCCAGCCAGGAGACTATTACGTTCCCTCTATAAAATTCATTAAGGGAGCTTGTCTTAAA  
AGCTATGGCTTTAATGCAGCAAGGCTTGCTAATCTCCCAGAGGAAGTTATTCAAAAGGGACATAGAAAAGCAAGA  
GAATTTGAGAAGATGAATCAGTCACTACGATTATTTGCGGAAGTTTGCCCTGGCTAGTGAAAGGTCAACTGTAGAT  
GCTGAAGCTGTCCATAAATTGCTGACITTTGATTAAAGGAATTATAGACTGACTACATTGGAAGCTTTGAGTTGACT  
TCTGACCAAAGGTGGTAAATTGAGACAACATTATGATCTAATAAACTTTATTTTTTAAAAATGA

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**FIGURE 741**

MSRQSTLYSFFPKSPALSDANKASARASREGGRAAAAPGASPSPGDDAAWSEAGPGRPLARSASPPKAKNLNGG  
LRRSVAPAAPTSCDFSPGDLVWAKMEGYPPWPCLVYNHPFDGTFIREKGKSVRVHVQFDDSPTRGWVSKRLKLP  
YTGSKSKEAQKGGHFYSAKPEILRAMQRADEALNKDKIKRLELAVCDEPSEPEEEEEEMEVGTTYVTDKSEEDNEI  
ESEEEVQPKTQGSRRSSRQIKRRRVIDSESDIGGSDVEFKPDTKEEGSSDEISSGVGDSESEGLNSPVKVARKR  
KRMVTGNGSLKRKSSRKETPSATKQATSSISSETKNTLRAFSAPQNSESAQHVSGGGDDSSRPTVWYHETLEWLKE  
EKRRDEHRRRDPHDFDASTLYVPEDFLNSCTPGMRKWWQIKSQNFDLVICYKVGKPYELYHMDALIGVSELGLV  
FMKGNWAHSGFPEIAFGRYSDSLVQKGKVARVEQTETPEMMEARCRKMAHISKYDRVVRREICRIITKGTQYTS  
VLEGDPSENYSKYLLSLKEEEDSSGHTRAYGVCFVDTSLGKFFIGQFSDDRHCSSRFTLVAHYPPVQVLFKEKN  
LSKETKTIKSSLSLCSLQEGLIPGSQFWDASKTLRLTLEEEYFREKLSDGIGVMLFPQVLKGMTSESDSIGLTPGE  
KSELALSALGGCVFYLLKKCLIDQELLSMANFEEYIPLOSDTVSTRSGAIFTKAYQRMVLDVLTNNLEIFLNGT  
NGSTEGTLLERVDTCHTPFGKRLKQWLCAPLCNHYAINDRLDAIEDLMVVPDKISEVVELLKKLPDLERLLSKI  
HNVGSPKLSQNHPSRAIMYEETYSKKKIIDFLSALEGFKVMCKIIGIMEEVADGFKSKILKQVISLQTKNPEG  
RFPDLTVELNRWDTAFDHEKARKTGLITPKAGFSDSDYDQALADIRENEQSLLYLEKQRRNIGCRTIVYWGIGRN  
RYQLEIPENFTTRNLPEEYELKSTKKGCKRYWTKTIEKKLANLINAEERRDVSLKDCMRRLFYNFDKNYKDWQSA  
VECTIAVLVDLLCLANYSRGGDGPMPCRPVILLPEDTPPFLELKGSRHFCITKTFGGDFIPNDILIGCEEEQENG  
KAYCVLVTGPNMGGKSTLMRQAGLLAVMAQMGCVPAEVCRLTPIDRVFTRLGASDRIMSGESTFFVELSETASI  
LMHATAHSLVLVDLGRGTATFDGTAIANAVVKELAEITKCRTLFSTHYHSLVEDYSQNVAVRLGHMACMVENEC  
EDPSQETITFLYKFKIGACPKSYGFNAARLANLPEEVIQKGHRKAREFEKMNQSLRLFREVCLASERSTVDAEAV  
HKLLTLIKEL

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FIGURE 742

GACGCCGACGATGAAGACACCGTGGAAAGGTTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCAACCATCATCAC  
CGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAACTTACACTCTAACTGA  
TACTTAAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTCAGATCATGAATATCTCTACAACA  
AGAAAATAATATCTTGGTATCAATGTGAATATGGAACAGCTCAGTTTCTTGGAGAACAGTACATTTGATGA  
GTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTATTCTCTTAGAATAACAACACGTA  
GCAATGGAGGACCTTCTACACAGCTTCATATGACATTTATGATTAAATAAAGGCAGCTGATTACAGAGAGAG  
GATTTCCAAACAAACACAGCTGGGTCACATGGTCACAGTGGGTCATAAATTTGGCATATGTTTGGAAACATGAC  
TTATGTTAAAAATTGAACCAAAATTACCAAGTTACAGAATCACATGGACGGGGAAGAAGATATAATATATAATGG  
AATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTTGGTGGTCTCCAAACGGCAGTTT  
TTTAGCATATGCCCAATTTAAACGACACAGAAGTCCCACTTATGAATACCTCTTACTCTGATGAGTCACTGCA  
GTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAAGTGTAAAGTTCTTGTGTGTA  
TACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGA  
TCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGAAATTTCTTGGCAGTGGCTCAGGAGGATTACAGAACTA  
TTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAAGTGAAGTCTTGTAGTGGCAGCGGCAACACATTGA  
AATGAGTACTACTGGCTGGGTTGAAGATTAGGCCCTTCAGAACCTCAATTTACCTTGTATGGTAATAGCTTCTA  
CAAGATCATCAGCAATGAAGAAGGTTACAGACACATTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTAT  
TACAAAAGGCACCTGGGAAGTCACTGGGATAGAAGCTCTAACCAAGTGATTATCTATACATAGTAATGATGAATA  
TAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAACCTTAGTGACTATACAAAAGTGACATGCCCTCAGTTG  
TGAGCTGAATCCGGAAGGTTGTCAGTACTATTCTGTGTCATTGACTAAAGAGGGCAAGTATTATCAGCTGAGATG  
TTCGGTCTCTGGTCTGCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCTTGGGAAGACAA  
TTACGCTTTGGATAAAATGCTGCAGAAATGTCAGATGCCCTCCAAAAAATGGGACTTCAATTTTGAATGAAC  
AAAAATTTGGTATCAGATGATCTTGCTCCTCAATTTTGATAAAATCCAAGAAATATCCTCTACTATTAGATGTGTA  
TGCAGGCCCATGTAGTACAAAAGCAGACACTGTCTTACAGCTGAACCTGGGCCACTTACCTTGCAAGCACAGAAA  
CATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGTTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAG  
ACTGGGAACATTTGAAGTTGAAGATCAAAATGAAGCAGCCAGACAATTTCAAAAATGGGATTTGTGGACAACAA  
ACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCTGGGATCAGGAAGTGGCGTGTT  
CAAGTGTGGAATAGCCGTGGCGCTGTATCCCGTGGGAGTACTATGACTCAGTGTACACAGAAGCTTACATGGG  
TCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATCAACAGTCAATGACAGAGCTGAAAAATTTTAAACA  
AGTTGAGTACCTCCTTATTATGGAACAGCAGATGATAACGTTCACTTTACAGCAGCTCAGATCTCCAAAGC  
CCTGGTCGATGTTGGAGTGGATTTCAGGCAATGTGGTATACTGATGAAGACCATTGGAATAGCTAGCAGCACAGC  
ACACCAACATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCTTAGCACCTCAAAATACC  
ATGCCAATTTAAAGCTTATTAACACTCATTTTTGTTTTCATTATCTCAAACTGCACATGTCAAGATGATGATC  
TTTAAAAACACACTCAAAATCAAGAACTTAAGGTTACCTTTGTTCCAAATTTTCATACCTATCATCTTAAGTAG  
GACTTCTGCTCTCACACAGATTATTACCTTACAGAAGTTTGAATATCCGGTGGGTTTTATTGTTTAAAAATC  
ATTTCTGATCAGCTGCTGAAACACAAATAAGGAATGTTTTTGGAGGCTTTGCATAGATTCCTGAGCAGGA  
TTTTAATCTTTTCTAACCTGGAGTGGTTCAAAATGTTGTTCTCTCTTTAAAGGGATGGCAAGATGTGGGCAGTGA  
GTGCTACTAGGCGAGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGCGATGCTGGGAACCAAGTCCA  
AGCATCAACACAGCAGCCAGCTACTGTCTAGCTCCCTCGGAGAAAACCTGTGCAGTCTGCGTGTGAACAGCTCTTC  
TCCTTTAGAGCAAAATGGATCTCGAGGGATCTTCCATACCTTACCAGTTCTGCGCCTCGAGGCCGCACTCTAGA

## FIGURE 743

MKTPWKVLLGLLGAAALVTIITVPVLLNKGTDADSRKTYTLTDYLNKNTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLNSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIINYGITDWVYEEEFVSAYSALWWSNGTFLAY  
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPPYKAGAVNPTVKFFVVNTDSLSSVINATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSYLYISNEYKMGPGGRNLYKIQLSDYTKVTCLSCELN  
PERCQYYSVSFSKEAKYYQLRCSGPGPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDKIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMVLGSGSGVFKCGIAVAPVSRWEYYSVYTERYMGMLPT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDPFQAMWYTDDEHGIASSTAHHQ  
IYTHMSHFIKQCFSLP



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FIGURE 744

CCGGTCGGATGCCGGACCGGGGGACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGAAAGCCCCG  
CTGCGCCCACTCCGTGCGGACCGCGAGGCGCGGGCGGGTGGAGGCGCGTCTCCGGCAGCAGTGAAGGATTGGGG  
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA  
TTCCAACCTCGAGAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGATGATAACACTTTGTGTCCAGGATTG  
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACCTTTTGGATCTTGCACTGAAACCTTTGTCTCTGGCT  
GTCAATATTTTGGACAGGTTCTTGCTCTTATGAAGGTGAAACCTAAACATTGTCTTGCACTGGAGTCTGTCT  
TTTTGTCTGGCTGCTAGAATAGTTGAAGAAGACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAG  
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAATAATTTAGAAAAATTGCACTATGAATTGGAAGCT  
ACTACTGCCTTAAACCTTTTGCACTTATACCATACTATTATACCTTTGTCATACTTCAGAAAGGAAAGAAATCTG  
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTCAAAAGCAAACCATCTGTA  
TAGCCTTGTGCCTTCTCAATTTGGAAGTGGAAACCTTGAAATCTGTGAATTACTGGAAATTTCTTGTCTAGTT  
AAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTCTAAATGCCTAGCCGAGTAT  
TCTTCTCCTGAATGTTGCAACCCAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTC  
CACACAGCTACTATAGTGTCTGAGCTGCCAACGATACCTGAGGGGGGTGTTTGTATGAAAGTGAAGTGAAG  
GACTCTTGGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCAGTGATCAAGAGTGCACCTTC  
TTTTCAACTTCAAAGTGGCACAACACTGTGCTTTCCATCTCTAGAAATCTGATTGTTCTGTGCAGAAATTTATAT  
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCTCGTTTACGCCCCATCTAGTCAGGAATTAATAT  
ACTGGAATACCTACCTTCTATTTGTTATTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAT  
GGGGTAGTGCCCTCTAAACCATTAACAGTACTTTAGACATTGGCAGCTTATTTTTCTCGTAGATCTTTAGCTACT  
TGGGGAGGAGGGAAGGTGCTGATACCTCAATTTGTACTTTTCAAGATTTTTAAAAATAACTAGTGTAGCTTA  
TCTTAAACATTTTATAAACCTTCAGATGCTTTAAGCAGATGGAAAGTATGCAAGTGCTTCTTTAGCAGGGACA  
GTGGATAATCCTTAATGGTTTATCATAGATTCACCCCTCCCCCTTCTCAGAAAGAGTGAGTATGCTCTTAAATGT  
CAAAACACATTTTGTGTTTTGTTTTTAAATGATCAGTGCTATTTGATGTGATGCAGATCTTATAAATTTGGG  
AATTATAATATGACATTTCTGTGATTTTATATATGTAATGCTTAATTGAGATTTGTGTTAAGGCAGAAATAA  
TTAGGCTAGGGCTCTTAGTTTTCAATTCCTATTGCCCAAAGTATTGTCAAACATATGGTATTTTAAATGTTACTT  
TAAAAATCCATAATCTGCTAGTTTTCATGCTACTTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTAT  
GGAATTGATAAATGTTGATCTGGGTAGTATATTTATCCGCACTTTCTTATATTAATAAATGTTCTGCATGATT  
ACATTTTATTTGCTTTGT

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**FIGURE 745**

MKDLGAEHLAGHEGVQLLGLLNIVLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE  
TFVLAVNILDRLALMKVKPKHLSCIGVCSFLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLH  
YELEATTALNFLHYHTIIILCHTSERKEILSLDKLEAQLKACNCRILFSKAKPSVLALCLLNLEVETLKSVELLE  
ILLLVKKHKSINDTEFFYWRELVSCKLAEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD  
ESESEDSCEDMSCGEESLSSSPPSDQECTFFFNFKVAQTLCFPS

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**FIGURE 746**

ATGGCCTGGATGCTGTTGCTCATCTTGATCATGGTCCATCCAGGATCCTGTGCTCTCTGGGTGTCCCAGCCCCCT  
GAGATTTCGTACCCTGGAAGGATCCTCTGCCTTCCTGCCCTGCTCCTTCAATGCCAGCCAAGGGAGACTGGCCATT  
GGCTCCGTCACGTGGTTCCGAGATGAGGTGGTTCCAGGGAAGGAGGTGAGGAATGGAACCCAGAGTTCAGGGGC  
CGCCTGGCCCACTTGCTTCTTCCGTTTCCTCCATGACCACCAGGCTGAGCTGCACATCCGGGACGTGCGAGGC  
CATGACGCCAGCATCTACGTGTGCAGAGTGGAGGTGCTGGGCCTTGGTGTCTGGGACAGGGAATGGGACTCGGCTG  
GTGGTGGAGAAAGAACATCCTCAGCTAGGGGCTGGTACAGTCCCTCCTCCTTCGGGCTGGATTCTATGCTGTCAGC  
TTTCTCTCTGTGGCCGTGGGCAGCACCGTCTATTACCAGGGCAAATGCCACTGTACATGGGAACACACTGCCAC  
TCCTCAGATGGGCCCCGAGGRGTGATTCCAGAGCCAGATGTCCCTAG

**FIGURE 747**

MAWMLLLILIMVHPGSCALWVSQPPEIRTELEGSSAFLPCSFNASQGRLAIGSVTWFRDEVVPGKEVRNGTPEFRG  
RLAPLASSRFLHDHQAELHIRDVRGHDASIYVCRVEVLGLGVGTGNGTRLVVEKEHPQLGAGTVLLLRAGFYAVS  
FLSVAVGSTVYYYQGKCHCHMGTHCHSSDGPRGVIPERCP

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FIGURE 748

GGGGAGAATCTGGTGGATGCTGGACCTTGCTGCTGCTGCTACTGCTGTTTCCAGGGGCTGCAGAGCATGGACTGT  
TAAATCTTGACATCTTCTTGAGTGAGCTGAATCTTGCCGCCAGGATGGGGAACAGAACAGCAAGCTGCGCCCG  
GAGGTGATGCAGGACTTGCTGGAAGACAGACTTTACAGAGCATGAGATCCAGGAATGGTATAAAGGCTTCTTG  
AGAGACTGCCCGAGGTGGACATTTGTCAATGGGAAGTTTAAGAAAATATATGGGAACCTTTTCCCTTATGGGGAT  
GCTTCCAAATTTGCAGAGCATGCTTCCGCACCTTCGATGCAATGGAGATGGGCAATAGACTTTAGAGAATTC  
ATCATCGCCTTGAGTGTAACCTCGAGGGGGAAGCTGGAGCAGAAGCTGAAATGGGCCTTCAGCATGTACGACCTG  
GACGGAAATGGCTATATCAGCAAGGCAGAGATGCTAGTGATCGTGAGGCAATCTATAAGATGGTTTCTCTGTGA  
ATGAAAATGCTTGAAGATGAGTCAACCCAGAGAAAAGAACAGAAAAGATCTTCCGCCAGATGGACACCAATAGA  
GACGGAAAACCTCTCCTTGAAGAGTTCTATCCGAGGAGGCCAAAAGCGACCCGCTCCATTGTGCGCCTCTGCAAGTGC  
GACCCGAGCATGCGCGGCAGTTCTGAGCCCTGCGCCCAACATCGAATTGTAGAGCTGCTGTGTTCCTTTTG  
ATTCTCTCTTTTAAACAATTTTTTTTTTTTTTGGCCAAACAATATCAATGGTGATGCCGCTCCCTGTGCGGTCTGA  
TGCGCCTTCTCCGTGACGCTTCAGCCTCTTTGTGCTGGATGCTTCTGCGGAATGCCAGAGCCCAAGTGTGC  
TTGTGGAGAGCATGGACAGACTTCGTGGTGTTCACTGTTTGTATGATTTTTTAATCGTTACTATTATTTCTTTTTAT  
TCTAATGCTCTGTTCTAAAACGTAAAGACTCGGGGGTTGGGGCAAAGAAGGAAACCCATCCAGTCTGTGATT  
CTATTGCAAGCTTCAAGGGGCTTTTTGTTTGAAGACAAAACCTCCCACTGGGTCTGTGTCACACGTGCCGTAG  
GGGTGATGGATGGCACCAGTGTGATTCCCAAGAACAAGTACCTCTGGGGTGAGGCTATTCCAGCGAGCT  
GGGACATTTCCCATGGGGGCCACTCCCTCTCTTCCCAAGCAGGCTGTAGTTTCTAAGCTGTGAACATTTCAA  
GATAAATTAACAGAGGAGAGAAAAGATGGCTACGCTATTTTTTACAGGTTTACACTAGTTGAGCTAAATGCG  
GTGCTTTTGGAAATTAACACAAATGGTAACATATTTCCAAAACAGACCCATCTGTGTGCTATTGTGATAAAAT  
AAAAAGACGGCTGTATATAACATATTGGGTAATGCAGACCAAAATTAAGTGTTTTGCGCTTGTTTAAATGAAATGCA  
TGTTTAGTGAGCACTAATACAATCTTATTCAGAAGACTGTTTTAGTAGCTATTGTGAAGTAAGACAACTATA  
ATGAATGCTGTCTGTTTGGGAAGTCATATCTGTCTTTGCACAAATGTACCAATCGACAAGTATATTTATATAT  
TCCATAAAAATACAAAGTAACCTGACTAGGGCCCACTTTAATTTGAATGCATTTCAGAGTGCCCATGCCTA  
GAGGCGAGATGCAGAGCAGGTGGTAGTGGGACAGGACAAATGGAGCAGAGGAATGTTAAACATGTATGACAGGGGA  
CCAGTAGGGTGGTTTTCCCTCTCAGGCCACGACGCCATTGACAGCATTAGACTGCGGCGCATGGTGCTTTCTGAG  
CAGATCAATACTCTGCAGACTCGAAAAAACATCACATACATTTCTTGGAACTTCCAGTGGTTTTAATCTATGTGA  
TGGTTAGGGAGCCAGGCTGGAAATTTAGTTTCCCTGCCCTGTAAAGAAATCAGAGGTTGGGCAGTCATCAAA  
TTCATCATAAAGACATGGGCAAGTGTGTCTGTGGTTTCCAAGGCCCCCTATGGAGAATCCAAAAGTATTTTCCA  
TGCGCTGTCTTTGAATGCAAGCTTCTATTTCCAGAAGTGACAGCAACATGCTGAGTTGCTGTTTGTGGTG  
ACCTCAGACACACTAATTTGAATTGAAGCTAAGAGTAAAAATTTGCTGGTTACAGGCAGCTACTCTTGCAA  
GCTAGTTAGCAAGGGGAGCCCAATTTCAAGGTTGTTGATGGGGAACCTGCCACTAAGAGAAGGCAGAGGCTC  
CCTAGTGGTATATTTTGTGCTCAGGGGCTTCCCAAGGACCTTCCAAAGAAGAGGAAACCAAGAGACATCATGACAGGA  
GAAAAATGTGACTAGACATGCTAACCTCCAGGTTTTATATATGACTTGAGTCTGCTGTAATTTGGCAGCAGAAAT  
CCAAATTTGTATGGTAGACCAAAAAGAACCAATCCATAGGGTGAAATTTGAGACCTAGACTCTGTAAAAATAA  
TCTAGTCTTCTCAGGGGCTCAGTCTTCAAGTGTTCTGACCAAACTTGCCTAAGTCTGCTGATGAGTGGCAAG  
TGTTAAATCTGTGTTTGGAAAAATAGCGAATTAACCTAAGACACAGAAAGGCAGACTGGGTGAGGAGACATGACAT  
GCCCTATTGGCAGTGCTCAGGAGCTGCATCCCACTTTTCCCTGCTCTGAATCGAAGTCTTGTCTCTTCTTTGA  
TCTCCTTTGGTAGGTGGAATCAGTTAAATGTTTTGAGAAAACCTGCGTGGCTCTGCCCTTAGTCATGACATCTCG  
CTGAGCCAGACCACTCTGTTTCTTGGAACTTAGAGCTGGAAGTGAAGGATAGAGGCTCTCGGCTATTCCAGAAAG  
AAAAGTGAGCCATGCAAGCTGATGAGCCGACACTTCCGAATGTATAGAAATAGTCCCTGCTGCTGCGCTGCG  
CACTGACCTGTCTGATTTTTCTCGGAGGTTGTTTTCTCCTTCTCCTTCCAGGAAGGCTTTGTATGTCGAAT  
CCAGTGCAGCTCAAGTTTGGCCAAGGGACTCCACAGCACCCAGAGGACTGCATGCCCTCAAGGTTTATGTCATCTCT  
CTGCTGGCTGTTCATTGTGCTGTGTGTTTCCAGGACCTTTGGAAATAAAACCTGTCTGCTCCCAATAAAACC  
AGCCTGTGATGTTCAAGGGACTGGAAATAAGTGGCTTACGACCTGAAGGATTTCTAAAAA

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**FIGURE 749**

MGKQNSKLRPEVMQDLLESTDFTEHEIQEWYKGLRDCPSGHLSMEEFKKIYGNFFPYGDASKFAEHVFRTFDAN  
GDGTIDFPREFIIALSVTSRGKLEQKLKWFPSMYDLGNGYISKAEMLVIVQAIYKMVSSVMKMPEDESTPEK RTE  
KIFRQMDTNRDGKLSLEEFIRGAKSDFSI VRLQCDPSSAGQF

ACCCCTCGCTGCTCCAGCCTCTGGGGGCGCATTCCAACCTTCCAGCCTTCGGCAGCTCGGGAGAGAAAAAATACTTACTT  
TTCTTTCGCCCATCACTCTTGGAGCGGAGCAAAAAATAATTTAACTGATGAGGAGAAATCTGCACATCCAG  
CGTGTCGATGCTGCACACAGATCGGTGGCAAGTTCTGGGAGGTGTAACGTGATAGCTGACATGGCATCGACCCCAAG  
GGCACCTACCACGGGGACAGCGACCTGCAGCTGGACCCGACTCTCTGTGATACAAATGAAGCCACAGTTGGGCAAA  
TATGTTCTCTCGTGCCATCTCTGGTGATCTAGAACCTGGGACCATGGACTCTGTTTCGCTCAGGTCCTTTTGGCCAG  
CTCTTTAGACAGCAACCTTTGATTTTGGTAGCTCTGGGGCAGGTAAACATTCGGCCAAAGGCCATACACAGAGA  
GGCGCCGAGCTGTTTGATTCTGCTCTGGATGTGGTACGGAAGAGGCCAGAGAACTGTGATCGCTCTCGAGGGCTCT  
TAGCTGAGCCCACTACTGGGCGGGGACAGGCTCTGGAATGGGCATCTCCTTATCAGCAAGATCCGAGAGTA  
TACCTGATTCGCATCATGAATACCTTCAGTGTGGTGCTCTACCCAAAGTGTTGACACCGTGTGTCAGGCCCTAC  
AATGCCACCTTCTCCGTCATCAGTGTGGTAGAAGATCATGATGAGCACTTATGTCATGACACAGGCGGCTCTTAT  
GATATCTGCTTCGGCAGCTGAGAGCTGACCAACCAACTACGGGAGCTGAAACCACTTGTCTCAGCCACATG  
AGTGGTGTACCACTCTGCCTCGTTTCCCTGGCCAGCTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTC  
CCCTTCCGAGCTGTCATTTTCTTATGCTGGCTTGGCCCTCTACCCAGAGCTGGAAGCCAGCAGATTCGAGCT  
CTCAGACTGCGGGAATCACCACGAGCTCTTCGATGACCAAGAACTGATGGTGGCTGTGACCCCGGCACCGC  
CGATACCTCAGCGTGCTGCTGCTCTCCGTTGGTCGGATGTCATGAAGGAGTGCATGAGCAGATGCTTAACTGTG  
CAGAAACAAGACAGCAGCTACTTTTGGGAATGATCCCAACAATGTGAAGACAGCGCTCTGTGACATCCCACT  
CTGGGCTCAAGATGGGACGACCTTCTATGGCAATAGCACAGGCTACGAGAGCTCTCAAGGCGATCTCGGAG  
CAGTTCACTGCCATGTTCCGCGGAAGGCCCTTCTCCACTGGTACACAGGCGAGGGCATGGACAGATGGAGATT  
CAGGAGGCTGAGGACAACATGAACGACTCGTCTCTGAGTATCAGCAGTACCAAGTACCGCCCGAAGAGGATC  
AGGAGTTTCTGTGAGGAGGCGGAAGGAGGGCTTAAAGCAGAGCCCAATCACTCAGGCTCTCAGTTCCCTTA  
GCCGCTTACTCAACTGCCCTTTCCTCTCCCTCAGAAATTTGTGTTGTGCTCTATCTTGTTTTGTGTTTTT  
CTTCTGGGGGGGGTCTAGAACAGTGGCTGGCACAATGAGTGGCGCTCAATAAAATACTTGTTTGTGAATGCTCCT  
CTCTCTTTCCACTCTGGGAACTAGGTTTCTGCAATCTGGGTGAGCACTGTATTTCTTTCTGGTGGCCATCCA  
TTTGTCAGTATAATCTCTCTCTAAAAATCTCCAAGAACTGGGCTCTCCAGATCACTTGAACAAACCAAGCT  
GCTGAAACACATGTAGATAATGGCCATCATCTCAAGCCAAAGTAGAAATGTTGTAAGGATGAGTGGAGAAGT  
CATATAATAAGGAAGGGATGGGATTTTCATCTTAAAGTTTGTGAGAGGGAATCCAGGCTATTAAAGTCACT  
AAATTTCTAAGTATGTCCATTTCCCATCTCAGCTCTCAGGAGGAGTGCACAGTATATCTCCATCTTTCAATCTC  
CTCCAAGCTCTACTCTGGAGAGTCTGTGCCATCTGTCAAGTGAATCTCTCCCTTCCAATCTACTCTCCTCT  
CACTCAGCTCCTTTCCCTGATCAGAGAAAGGGATCAGGCGGGTGGGAGGGGGGAAAGAGACAGCCTTGGTCC  
CTAAGCTCCAGAAGAGCTCTCTTAATCCGCCACCTTTTCTTACTTCCAAAAGAAAGTAACACCCCTGACTTGTG  
AGTGGTGTAATCTGCACATCAGTGTGTGATGAGCTGCCAGAGGAGGGAAGCTCTCCATCTATCTTTTGGCA  
ACATCTCATTTCTCTTTTGTGTTGCTTCCCCCTCACACACTTGGTTTGTCTATCTCATTTTGAGATT  
CTATTTTATGTTGAATTCGTCGTTTTTTCATATTGAAAGATTGACATCGCCCCAGAGCGAAAAATAATGGG  
AATTTGAAAAAATAAAAAAATAAAAAA

**FIGURE 751**

MREIVHIQAGQCNGQIGAKFWEVISDEHGIDPTGTYHGSDDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL  
LISKIREEYFDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSAITMSGVTTC LRFPGQLNADLRKLAVNMVVPFRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAF LHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAEEEA .



## FIGURE 752

GAATTGAACCAACCATTTTCTTTCTTAGCCAAATCACCAAAATGTCAGTTAGAACAAAGATTTAGCATTCTGC  
AAAAGAAAGTTAACAGCTGAGATAACGAGGAAATATTCTGAAATGATGCCAAATATTTCACTCTTAATTTTGTTT  
GTGGACACCTGAACAATACATTTTTCTCAAAGACAGAGACAATTACAACAGAGAAGCAGTCACAGCCTACCTTAT  
TCACATCATCAATGTCCAGGTTATGGCTAATTCTCAAAACACAACAGGGAATCCTTTGGGTCAACCAACAAT  
TCAGCGACACTTTTTCTGGACAATCAATATCACCTGCCAAAGTCACTGCTGGACAACCAACACCAGCTGTCTATA  
CCTCTTCTGAAAAACCAAGCACATACTTCTGCTGGACAACCACTTGCTTACAACACCAACCAACCAACCAAA  
TAGCCAACACCTCCTCCAGCAAGCGGTGTCACTCTGCCAGACAACCTACCATCTGCCGTACTTCTACCAAC  
AACCACCAAGTCATTTGTCTATACTTTTACTCAACAATCATCATCTGTCCAGATCCCTTCTAGAAAACAAATAA  
CTGTTTCATAATCCATCCACACAACCAACATCAACTGTCAAAAATTCACCTAGGAGTACACCAGGATTATCTTAG  
ATACTACCAGTAACAAACAACCCCAAAAAACAATTATAATTCAATAGCTGCCATACTAATTTGGGTACTTCT  
TGACTTCTATGTTGGTAGCTATAATCATCATTTGACTTTGGAAATGCTTAAGGAAACCAGTTTTAAATGATCAAA  
ATTGGGCAAGGTAGATCTCCATTTGCTGATGGAGAAACCCCTGACATTTGTATGGATAACATCAGAGAAAATGAAA  
TATCCACAAAACGTACATCAATCATTTTCACTTACCCCTGGAAACCAAGCAAAAGCACACTTTTAGCAGATGACT  
TAGAAATTAAGTTGTTTGAATCAAGTGAAACATTGAAGACTCCAACAACCCCAAAACAGAGAAAATAAAGATC  
AAGTAAATGGTACATCAGAAGATAGTGCTGATGGTTCAACAGTTGGAACGTGTGTTCTTCTTCAGATGATGCAG  
GTCTGCCTCCACCACCTCCCTTCTGGATTGGAAGGACAGGAAAGTAACCAATCTGACAAACCCACAATGACAA  
TTGATATCTCTCTTCCAATGATTCTACTAGTCTCCCTCCATCTCTGGACTGTCTCAATCAAGACTGTGGAGATC  
ATAAATCTGAGATAATACAATCATTCCACCGCTTGACTCACTTAACCTTGCCCTGCCACCAGTAGATTTTATGA  
AAAACCAAGAAGATTCCAACCTTGAGATCCAGTGTCAAGAGTTCTCTATTCTCCCAACTCTGATCAAGATCTTA  
ATGAATCCCTGCCACCTCCACCTGCAGAACTGTTATTAATATTACAACCTTGCTTTTAGCTGATCTTCCATCTCTC  
AAATGACTCTTTTTCTTTATATGTTAACATATATAAATGGCAACTGATAGTCAATTTTGATTTTTATTCCAGGA  
ACTATCTGAAATCTGCTCAGAGCCTATGTGCATAGATGAAACTTTTTTTAAAAAAAGTTATTTAACAGTAATCT  
ATTTACTAATTATAGTACCTATCTTTAAAGTATAGTACATTTTACATATGTAATGGTATGTTTCAATAATTAA  
GAACCTGAAACAATCTACATATACTTATTACCCAGTACAGTTTTTTTCCCTGAAAAGCTGTGTATAAAATTA  
TGGTGAAATAAATTTTATGTTTCCATTTCAAAGACCAGGGTGGAGAGGAATAAGAGACTAAGTATATGCTTCAAG  
TTTTAAATTAATACCTCAAGTATTAATAAATATCCAACTTTGTGGGAATGGGAGATTAAATGCAATGTTTGA  
AGTAAAAAATAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 753**

MDPKYFILILFCGHLNNTFFSKTETITTEKQSQPTLFTSSMSQVLANSQNTTGNPLGQPTQFSDTFSGQSI SPAK  
VTAGQPTPAVYTSSEKPEAHTSAGQPLAYNTKQPTPIANTSSQQAVFTSARQLPSARTSTTQPPKSFVYFTQQS  
SSVQIPSRKQIIVHNPSQTPTSTVKNSPRSTPGFILDTTSNKQTPQKNYNYSIAAILIGVLLTSMVAIIIIVLW  
KCLRKPVLNDQNWAGRSPPFADGETPDICMDNIRENEISTKRTSIIISLTPWKPSKSTLLADDLEIKLFESSENIED  
SNNPKTEKIKDQVNGTSEDSADGSTVGTAVSSDDAGLPPPPPLLDLEGQESNQSDKPTMTIIVSPLPNDSTSLPP  
SLDCLNQDCGDHKSEIIQSFPPLDSLNLPLPPVDFMKNQEDSNLEIQCFESIPPNSDQDLNESLPPPPAELL

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**FIGURE 754**

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC  
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC  
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT  
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC  
AATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTTCGCAAGCTG  
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACCTGGTTCTGGGTTCAAC  
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTACCCGGCGCCC  
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGT  
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTTCGTAGAAAACCTCGATATCGAGCGCCCAACCTACACT  
AACCTTAACCGCCTTATTAGCCAGATTGTGCTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT  
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTG  
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACC AATGCTTGCTTTGAGCCAGCCAAC  
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC  
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCACTGGC  
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG  
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCTGGACCACAAGTTTGACCTGATGATATGCC  
AAGCGTGCCTTTGTTCCTGTTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAGGACATG  
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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**FIGURE 755**

MRECISIHVGQAGVQIGNACWELCYLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSPGGGTGSGFT  
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGEFSEAREDMAALEKDYEEVGADSDGEDEGEY

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**FIGURE 756**

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCCTTGAACGCAGTCGCCCTACAGCCGCTGATTCGCCCGCA  
TCGCCCTCCCGTGGAAGCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACCATGTCACCAACGAGAAAT  
GCTAATACACAGCTGCCCGCTTCACAGATTCAAGAACAGGGAAAAAGACAGTACAGAAATGAGGCGTCGCAGA  
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATTT  
CCTGATGATGCTACTTCTCCGCTGCAGGAAAAACCGCAACAACAGGGCAGTGAATTTGGTCTGTTGATGACATT  
GTCAAAGGCATAAATAGCAGCAATGTGGAAAAATCAGCTCCAAGCTACTCAAGCTGCCAGGAAACTACTTCCAGA  
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGCTCTTTGGGCAGAACT  
GATTGTAGTCCCAATTAGTTTGAATCTGCTTGGGCACCTACTAACATTGCTTCTGGGACATCAGAACAACCAAG  
GCTGTGGTAGATGGAGGTGCCATCCAGCAGTTCATTTCTCTGTGGCATCTCCCCATGCTCACATCAGTGAACAA  
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT  
GACCCACTGTTGGCTCTCCTTGCAGTTCCTGATATGTCACTTTAGCATGTGGCTACTTACGTAATCTTACCTGG  
ACACTTTCTAATCTTTGCCGCAACAAGAATCTGCACCCCGATAGATGCTGTTGAGCAGATTCTTCTACCTTA  
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTACCTTACTGATGGT  
CCAAATGAACGAATTGGCATGGTGGTGAACAAAGGAGTTGTGCCCCAAGTTGTGAAGCTTCTAGGAGCTTCTGAA  
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG  
ATTGATGCAGGAGCACTGCGCGCTTTTCCAGCGTCTCACCAACCCCAAACTAACATTCAGAAGGAAGCTACG  
TGGACAATGTCAACATCACAGCGCGCCGCGAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCAATTC  
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCGGTGACCAACTATACCAGT  
GGTGGAAACAGTTGAACAGATTGTGTACCTTGTTCAGTGTGGCATAATAGAACCGTTGATGAACCTCTTAACTGCA  
AAAGATACCAAGATTATTCGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA  
ACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAAATTGAAGCTCTACAAAACCATGAAAAT  
GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT  
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTTTAGATC  
ATGTAGCTGAGACATAAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTTGTTTCTACTAAGAACTCTTT  
CTTAAATGTGGTTTGTACTGTAGCACTTTTACACTGAACTATACTTGAACAGTTCCAACTGTACATACATAC  
TGTATGAAGCTTGCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCCATATCTTGACGATCCTGTAAATAA  
ACATTTCAAGTCCACCTTAAAAAAA

**FIGURE 757**

MSTNENANTPAARLHRFKNKGDSTEMRRRIEVNVELRKAKKDDQMLKRRNVSSFDDATSPLQENRNNQGTVN  
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIIRAGLIPKFVSFLGRDTCSPIQFESAWALTNIASG  
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY  
LRNLTWTLNLNCRKNPAPPIDAVEQILPTLVRLHHDDPEVLADTCWAISYLTGPNERIGMVVKTGVPQLVK  
LLGASELPIVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSSLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN  
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIIILVILDAISNIFQA  
AEKLGETEKL SIMIEECGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVQDGAPG  
TFNF

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**FIGURE 758**

**ATGCGG**AAATATAACACGGGGGGCAACCCGACAGAGGATGCTCTCAGTCAATAGCCGACCCTTCAGAGTCACAGGG  
CCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAACAACCAAGGAAATGCCAGCCCTCTGCAGGA  
CCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCAGTCAAACCTTCTTCTGAGGAAAAGCCTGAC  
AAGGAACCCCAAGCCCGGTTTCTAAAGCCCACTGGAGCAGGCCAAAGATTCCGGAACACCAAGCCAGCTTGACCAAC  
AGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCAAGCCCATCAACTTGGCCAAAGAAAGATTCC  
AAACCTACATTTCCCTGGCCCTCTGGAAACAAGCCATCTCTTACAGTGTAAACAAGACCATGACTTTAAAGCCA  
CTAGGCCCGAAATCTGGGCCTACTCTCTCAACCTCAGAAATGAACAGAAGCAAGCGTTTCCCAAATTTGACTGGG  
GTTAAAGGGAATTTATGTGACGATCACAGATCTTTGAACCCCAAGCCCTCTTCCCAAACCCGCTTTTGCCCAAG  
AAGCCCGCCCTAAGTACCGAGAATCTCCATGAAGACGAAAGCCCCATGAAGAATGTGTCTTCATCAAAAGGGTCC  
CCAGCTTCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCAAGCAAGGGAAGACTCAGAAAAATAAGACCAT  
GCAGGGGAGATTCAAGTTTGCCCTTTCTTGGAGTGGTTTGAACCTGCTGCGAGCAGGGGAGGCCAGGTCTCT  
TCCAAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCTGCTAAGAACACCTTCCAGAGCAAAATAAAT  
CAGGAAGAGTTGGCCTCAGGGACTCCTCTGCCAGGTTCCCTAAGGCCCTTCTAAGCTGACAGTGGGGGGCCA  
TGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTACGCCACCCCGAAACAGAAGCCATTGCCTCCCTTG  
TTTACCTTGGGTCCACCTCCACCAAAACCCAAACAGACCACCAAAATGTTGACTGCAGAAATTCACAAAACCTCT  
TCTGGAACAGTACTAGCAAGGCCAGAGCTTTACTCAACAACCTTCCCTGCCACCACCTCCACCATCCCATCCG  
GCCAGCCAACCACCATTTGCCAGCATCTCACCCTACACAACCACAGTCCCAGCCTACCTCCAGAAACATTAAA  
CCTCCGTTTGACCTAAAAAGTCCGTGCAATGAAGACAATCAAGATGGTGTACGCACCTCTGATGGTCTGGAAAT  
CTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATAGAAGCATCCAAAGAAAGAGAGAAGAAAAAG  
GAAAAGGAAGAAAGAAAGAGGTTAGAGCTGGAGAAAAAGGAACAGAAAGAGAAAGAAAGAAAGAAACAAAGAAATA  
AAGAAGAAATTTAACTAACAGGCCCTATTCAAGTCATCCATCTTGCAAAAGCTTGTGTGATGTCAAAGGAGGA  
AAGATGAAGTGAAGTTCAAGCAAGGAGAGCAAAATTGAATCATCCGCATCACAGACAACCCAGAAGGAAATGG  
TTGGGCAGAACAGCAAGGGGTTTATATGGCTATATTAACAACCTGCTGTAGAGATTGACTATGATTCTTTGAAA  
CTGAAAAAGACTCTCTTGGTGCCCTTCAAGACCTATTGAAGATGACCAAGAGATATATGATGATGTTGAGAG  
CAGGATGATATTAGCAGCCACGTGAGAGTGGAGTGGAGGGATATTCCCTCCACCACAGATGATGACATTAT  
GATGGGATTGAAGAGGAAGATGCTGATGATGGCTCCACACTACAGGTTCAAGAGAAAGTAATACGTGGTCTTG  
GGGATTTGAAGATGTTAAAGGGAAAAAGATGACAGAAAGAAAGTATACGAGAGAAACCTAAAGTCTCTGACTCA  
GACAATAATGAAGGTTTATCTTTCCCTGCTCTCTTAACAATTTGGACATGGGAGATGAAGTTTACGATGATGTG  
GATACCTCTGATTTCCTGTTTCATCAGCAGAGATGAGTCAAGGAACATAATTTGGAAAAAGCTAAAGCAGAGAAGAA  
AAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAA  
ATTAGAGTCTATATTCAACTAAAGTTACAACCTCCATAACTCTAAAAAGTGGGGAACCAAGAGATCTACAGGTA  
AAACCTGGTGAATCTCTAGAAGTTATACAAACCAAGATGACACAAAAGTCTCTGCAGAAATGAAGAAGGGGAAA  
TATGGTTATGCTCTTCGGAGTTACCTAGCGGACAATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATC  
TATGACAATGAC**TAG**

## FIGURE 759

MAKYNTGGNPTEdVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD  
KEPKPPFLKPTGAGQRFGTASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSHVNDHDLKP  
LGPKSGPTPPTSENEQQAFFKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPPLSTENSHEDESPMKNVSSSKGS  
PAPLGVRKSGPLKPAREDSENKDHAGEISSLPFPVVLPKAASRGGLSKNGEEKEDRKIDAAKNTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGP PPPPKPNRPPNVDLTKFHKTS  
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNKPPFDLKSPVNEQDQGVTHSDGAGN  
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFQKGEQIEIIRITDNPBGKWLGRGTARGSYGIKTAVEIDYDSLKLKDSLGA PSRPIEDDQEVYDDVAE  
QDDISSHSQSGGGIFPPPPDDDIYDGI EEDADDGSTLQVQEKSNWWSWGLKMLKGKDDRRKKSIREKPKVSDS  
DNNEGSSFPAPPKQDMDGDEVYDDVDTSDFPVSSAEMSQGTNFGKAKTEEKDLKKLKKQKEEKDFRKKFKYDGE  
IRVLSTKVTTITSKKWGTRDLQVKPGESLEVIQTDDTKVLCRNEEGKYGYVLRSLADNDGEIYDDIADGCI  
YDND



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**FIGURE 760**

TAGGATGGAAAGGCAGATGTAAGTCCCTCATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA  
GTCAATAGCCGACCCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC  
AACCAGGAATGCCAGCCCTCTCGAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA  
GTCAAACCTTCTTCAGGAAAAAGCCTGACAAGGAACCCAGCCCCCGTTCTAAAGCCCACTGGAGCAGGCCAA  
AGATTGCGAACACCAGCCAGCTTGACCACCAGAGACCCGAGGCGAAAGTGGGATTCTGAAACCTGTAGGCCCC  
AAGCCCATCAACTTGCCCAAAGAGATTCCAAACCTACATTTCCCTGGCCCTCCTGGAACAAGCCATCTCTTCAC  
AGTGTAAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCCTACTCTCCAAACCTCAGAAAATGAA  
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAATTTATGTGAGCATCACAAGATCTTGAACCCAAG  
CCCCCTCTTCCCCAAACCCGCTTTGGCCAGAAGCCGCCCTAAGTACCAGAACTCCCATGAAGACGAAAGCCCC  
ATGAAGAATGTGTCTTCATCAAAGGGTCCCAGCTCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCA  
GCAAGGGAAGACTCAGAAAATAAAGACCATGCAGGGGAGATTTCAAGTTTGGCCCTTTCCTGGAGTGGTTTTGAAA  
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT  
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCTCTGCCAGGTTCCCTTAAG  
GCCCTTCTAAGCTGACAGTGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAAATTCAGCC  
ACCCGAAACAGAAGCCATTGCCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAT  
GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAACAGTACTAGCAAGGCCAGACGCTCTTACTCAACAAC  
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCCAACCACTTGGCAGCATCTCACCCATCACAACCA  
GTCCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT  
GGTGTACGCACCTCTGATGGTGTGGAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA  
GAAGCATCCAAAGAAAGAGAGAAGAAAAGGGGAAAAGGAAAGAAAGAGGTTAGAGCTGGAGAAAAAGGAACAG  
AAAGAGAAAGAAAAGAAAGAACAGAATAAAGAAGAAATTTAACTAACAGGCCCTATTCAAGTCTCCATCTT  
GCAAAAGCTTGTGTGATGTCAAAGGAGGAAAGATGAAGTCAAGCTCAAGCAAGGAGACAAATTGAAATCATC  
CGCATCAGACAACCCAGAAGGAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTAACAAC  
GCTGTAGAGATTGACTATGATCTTTGAACTGAAAAAGACTCTCTTGGTGCCCTTCAAGACCTATTGAAGAT  
GACCAAGAAGTATATGATGATGTTGACAGCAGGATGATATTAGCAGCCACAGTCAGAGTGAAGATTGGAGGGATA  
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT  
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG  
ATGAGTCAAGGAACATAATTTGGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAGCAGGAAAAA  
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAATTAGAGTCCATATATTCAACTAAAGTTTACAAC  
TCCATAACTTCTAAAAAGTGGGAACAGAGATCTACAGGTAAACCTGGTGAATCTCTAGAAGTTATACAACC  
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAATATGGTTATGTCTCGGAGTTACCTAGCGGAC  
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGACTACCACTCAACTTTGGTCATT

**FIGURE 761**

MAKYNTGGNFTEDVSVNSRPFVRTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEEKPD  
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFFWPPGNKPSLHSVNQDHDLLK  
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPPLSTENSHEDESPMKNVSSSKGS  
PAPLGVRSGSGLPKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAANKTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKN SATPKQKPLPPLFTLGFPPPKPNRPPNVDLTKFHKTS  
SGNSTSKGQTSYSTTSLPPPPSHPASQPPLPASHPSQPPVPSLPPRNKPPFDLKSPVNEQDGVTHSDGAGN  
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFQGEQIEIIRITDNEGGKWLGR TARGSYGYIKTTAVEIDYDSLKLKSDSLGAPSRPIEDDQEVYDDVAE  
QDDISSHSQSGSGGIFPPPPDDDIYDGEIEEDADDGFFAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA  
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTITSITKKWGTDLQVKPGESLEVIQTDDTKVLCRN  
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

## FIGURE 762A

GCCCCAGGGCCTGGAGAGGTCCTGAAGAAACCTGGGAGGCAGACGCCGGGGCTCCACTCTGGGTTCTGAAGAGCCC  
ATTCCCTGCTCTGGGGCTCTCTCCACCCCACTCTTCTCAGCCTTGACAGCTCAAGGGTTGATCTCAGGAGTCCAG  
GACCCAGGAGGAGGGAAGAACTCAGGAACACAGAACAGTGAAGCGTTGCCACACACCCATCTCCCGTCACCCACATC  
TCCCTCACCCTCAGCCTCCCTGCTGGCCCTGGACCCCATCCCAAGGACCTCCCTATCAGCTGACTTCTCCAGT  
GTCTTGACGGCCCCCTCTGGGCTCTCCCTCCCTGGCTTTTCTTACCACCTCCCCCTCTATCGGCGCTATCTGTA  
GGTGCCCTGGGATTTATAAACTGGGTTCCGAATGCTGAATAAGAGACGGTAAGAGCCAAAGGCAAGGACAGCAC  
TGTTCTCTGCTGCTGATACCTCACCACCTGGGAACATCCCCAGACACCTCTTAACCTCCGGGACAGAGATG

GCTGGCGGAGCCTGGGGCGCGCTGGGCTGTTACTTGGAGTTCTTGAAGAAGGAGGAGCTGAAGGAGTTCAGCCTT  
CTGCTGCCCAATAAAGCCCACTCAGGAGCTCTTCGGGTGAGACACCCGCTCAGGACAGAGAAGACGAGTGGCATG  
GAGGTGGCCTCTGACTCTGGTGGCTCAGATATGGGAGCAGCGGGCTGGGACCTAGCCCTCCATACCTGGGAGCAG  
ATGGGGCTGAGGTCACTGTGCGCCCAAGCCAGGAAGGGGAGGCCACTCTCCCTCATCTCCCTACAGCCCAAGT  
GAACCCACCTGGGGTCTGCCAGCCACCCCACTCCACCGCAGTGCTAATGCCCTGGATCCATGAATCTCGGCGG  
GGGTGACCCAGGGCTCAGAGAGAAGGGTTTGGAGACAGCTGCCTGACACATCTGGACGCCCTGGAGAGAAATC  
TCTGCTCACTCTCTACCAAGCTCTTCCAAGCTCCCCAGACATGAGTCTCCAAGCCAGGAGTCAACCAAGCCG  
CCACATCCACAGCAGTGTGGGAGCTGGGGATCCCCACCTCAGCCAGCCTAGCACCCAGAGAGCAGGAGGCT  
CCTGGGACCCCAATGGCCTCTGGATGAACAGTCAGGAATTACTACACAGAAATCAGAGAAGAGAGAGAGAGAAA  
TCAGAGAAAGGCAGGCCCATGGGACGCGGTGGTAGGAACGCCCCACAGGCGCACACCAAGCTTACAGCCCAAC  
CACCACCCATGGGAGCCTTCTGTGAGAGAGAGCCCTGTGTCCACATGGCCCTGGAAAAATGAGGATTTTAACAA  
AAATTACACAGCTGCTACTTCTACAAAGACCTCACCACAGAGCCCAAGATCCCTTGCTCAAGAGAGCTGGCCT  
GATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTGGCCAGGCTGGATACCCAAAGAA  
CCTCGCATAGTCATACTGCAGGGGGCTGTCTGAATTTGGAAAGTCAACATGGCCAGGCAAGGTAAGGAAAGCTCG  
GGGAGAGGCCAGCTGTATGGGAGCCGCTTCCAGCATGCTTCTACTTTCAGCTGCAGAGAGCTGGCCAGTCCAAG  
GTGGTGAGTCTCGCTGAGCTCATCGAAAGATGGGACAGCCACTCCGCTGCCATTAGACAGATCTGCTGTAGG  
CCAGAGCGGCTGCTCTCATCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGACAGGAGCCGAGTCTTGAGCTC  
TGCTGCACTGGAGCCAGCCACAGCCGGCGGATGCATGCTGGGCAGTTTGTGGGAAAACTATACTTCCCGAG  
GCATCTTCTCTGATCAGGGCTCGGACCACAGCTCTGCAGAACCTCATTCTTCTTTGGAGCAGGCACGTTGGGTA  
GAGGCTCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTCTACAGATATTTCAGAGTGAAGGCAAGCAAT  
AGACCTTTAGGTGGTCAAAATCAAAAGAGCTCTGGGCCCTGTGCTTGCTGGCTGGGTGTCTGGCTGGCC  
TGCATTGGCTGATGCAGCAGATGAAGCGGAAGGAAAACTCACATGACTTCCAAGACCACCACAACCTCTGT  
CTACATTACCTTGCCCAAGGCTCTCAAGCTCAGCCATTGGGACCCAGCTCAGAGACCTCTGCTCTCTGGCTGCT  
GAGGGCATCTGGCAAAAAAGACCTTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCATCATC  
TCCACCTTCTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTACCTCTGTTTC  
CAAGAGTTCTTTCAGCAGATGTCTTATGCTTGGAGGATGAAGAAGGGGAGAGGTAACATTTCTAATTGTCATATA  
GATTGGAAAAGACGCTCAAGCATATGGAATACATGGCCTGTGTGTCAGACACAGTTTCCATTGGGCG  
CTGTTAAGTGATGAGGGGGAGAGAGATGGAGAATCTTTTCACTGCCGCTGTCTCAGGGGAGGAACCTGTATG  
CAGTGGGTCCCTCTCGAGCTGCTGCTGCAGCCACACTCTCTGAGAGTCCCTCCACTGCTTGTACGAGACTCGG  
AACAAAACGTTCTTGACACAGTGTATGGCCATTTCGAAGAAATGGGCATGTGTGTAGAAAACAGACATGGAGCT  
TTAGTGTGCATTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGTGATTGAGGGGACGAGCAGCATCA  
TCAACTGTGAGGCCCCACCATGGTAGTCTGTTTCAAGTGGGTCCAGTCAAGATGCTTATGGCAGATTCTCTTC  
TCCGCTCTCAAGGTCACGAACCTTGAAGGAGCTGGACCTAAGTGGAACTCGCTGAGCACTCTCTGAGTGAAG  
AGTCTTTTGAAGACCTTGAGAGCCCTCGCTGCTCTGGAGACCTCGGCTTGGCTGGCTGTGGGCTCTCAGCT  
GAGGACTGCAAGGACTTGCCTTTGGGCTGAGAGCAACAGACCCCTGAGCAGGCTGAGCTGAGCTTCAATGTG  
CTCAGGATGCTGGAGCCCAACACTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGACGCTG  
GTACGCTGTGGCTCTCAGCTGCTACTGCTGCCAGGACCTGGCCTCTGTGCTTGTGTCAGCCGCCAGCTGGAAGG  
CTAGACCTGCGCAGAAACAACTGGATGACGTTGGCTGGGACTGCTCTGTGAGGGGCTCAGGACTCTGCTGCTG  
AAACTCATACGCTGGGGCTGGACCAGACAACCTTGAGTGATGAGATGAGGAGGAACTGAGGGCCCTGGAGCAG  
GAGAAACCTCAGCTGCTCATCTTCAGCAGACGGAACCAAGTGTGATGACCCCTTACTGAGGGCTGGATCGGGA  
GAGATGAGTAATGACATCTCTCACTCAAGCGGCAGAGACTCCGATCAGAGAGGGCGGCTTCCATGTGTGCTCAG

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**FIGURE 762B**

GCTAATCTCAAACCTCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAGGTA  
GTACCGGTGGAACCTCTTGCGTGCCTTCTCTGCCTCTCAAGGGGACCTGCATACGAAAGCCTTTGGGGACTGAC  
GATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTTTAC  
TTCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTTGAG  
ATTGAATTCTGTGTGTGGGACCAGTTCTTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCTCTG  
CTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGCCAT  
GTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCTGGAGAAGCCAGCCAGGGTGGAG  
CTGCATCACATAGTTCTGGAAAAACCCAGCTTCTCCCCCTTGGGAGTCTCTCTGAAAAATGATCCATAATGCCCTG  
CGCTTCATTCCCGTCACTCTGTGGTGTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACTTCCACCTCTAC  
CTGATCCCAAGTGACTGCTCCATTGGGAAGGAACCTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTT  
TCGGAGTTCTACGTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTG  
TGGGAGGCTTGGTGAACACAGGAGATCTCATGCTGCAACTACTCTGATCCCTCCAGCCCCGATAGCCGTACCT  
TCACCTCTGGATGCCCCGCAGTTGCTGCATTTGTGGACAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCG  
GTGGAGGTTGCTTTGGACAAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAAC  
ACGAGGCCCCAGCCAGATGCGGAAGCTGTTCACTTGAGCCAGTCCCTGGGACCGGAAGTGCAAGATGGACTCTAC  
CAAGCCCTGAAGGAGACCCATCCTCACCTCATTATGGAACCTCTGGGAGAAGGGCAGCAAAAAGGGACTCTTGCCA  
CTCAGCAGCTGAAGTATCAACACCAGCCCTTGACCTTGAGTCTGGCTTTGGCTGACCCCTCTTTGGGTCTCAG  
TTTCTTTCTCTGCAAAACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAACCTTTGATGATGCCCTT  
GCTGGGCATTATGTGTCCATGCCAGGATGCCACAGGGGGCCCCAGTCCAGTGGCCCTAACAGCATCTCAGGGAA  
TGTCCATCTGGAGCTGGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCCTAGA  
GCCCTCCGGATCCCATCCAGGCGCAAGAGGAATAGGAGGGACATGGAACCAATTGCTCTGGCTGTGTACAGG  
GTGAGCCCCAAAATTGGGGTTCAGCGTGGGAGGCCACGTGGATTCTTGCTTTGTACAGGAAGATCTACAAGAC  
AAGCCAACAGAGTAAAGTGGAAAGGAGTTTATTCAGAAAAATAAGGAGTATCACAGCTCTTTTAGAATTGTCTA  
GCAGGCTTTCCAGTTTTCACAGAAAAACCCCTATAAAATTAATAATTTTACTTAATTTAAGAATTAATAAAT  
ACAAAAAGAAAAATGAAAAATAAGGAATAAGAAGTTACCTACTCCAAAAA

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**FIGURE 763**

MAGGAWGR LACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGM EVASYLVAQYGEQRAWDLALHTWE  
QMGLRSLCAQAQEGAGHSPFFYPSPSEPHLGSPSQPTSTAVLMPWIHELPA GCTQGSERRVLRQLPDTSGRRWRE  
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSGWSPFPQPSLAPREQEAPGTQWPLDETSGIYYTEIRERERE  
KSEKGRPPWA AVVGTTPQAHTSLQPHHHWPESVRESL CSTWPWKNEDFNQKFTQLLLQRP HPRSQDPLVKRSW  
PDYVEENRGHLIEIRD LFGPGLDTQEPRIV I LQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVVFYFSCRELAQS  
KVVS LAELIGKDG TATPAP I RQILSRPERLLF ILDGVD EPGWVLQEPSSSELCLHWSQPQPADALLGSL LGKTI LP  
EASFLITARTTALQNLIP SLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKS NKELWALCLVPVWSWL  
ACTCLMQMKRKEKLTLSKTTTTLCLHYLAQALQAQPLGPQLRDLCSLAAEGIWQKKT LFSPPDDRKHGLDGA I  
ISTFLKMGILQEHP I PLSYF I HLCFQEFFAAMS YVLEDEKGRGKHSNCI IDLEKTLEAYGIHGLFGASTTRFLL  
GLLSD EGEREMENIFHCRLSQGRNLMQWVPSLQ LLLQPHSLES LHC LYETR NKTF L TQVMAHFEEMGMCVETDME  
LLVCTFCIKFSRHVKKLQ LIEGRQHRSTWSPTMVV LFRWVPVTDAYWQILF SVLKVTRNLKELDLSGNSLSHSAV  
KSLCKTLRRPRCLLETLRLAGCGLTAEDCKDLAFLGRANQITL TELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ  
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGRLLCEGLRHPACKLIRLGLDQTTLSDEM RQELRALE  
QEKQLLIFSRRKPSVMPTTEGLD TGEMSNSTSS LKRQRLGSERAASHVAQANLKLDDVSKIFP IAEIAEES SPE  
VVPVELLCVPSPASQGD LHTKPLGTDDDFWGP TGPVATEVVDKEKNLYRVHFPVAGSYRWPNTIGLCFVMREAVTV  
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTS LFQMAHFKEEGMLLEKPARV  
ELHHIVLENPSFSPLGVLLKMIHNALR FIPVTSVVLLYHRVHPEEVT FHLYLIPSDCSIRKELELCYRSPGEDQL  
FSEFYVGH LGSGIRLQVKDKKDETLVWEALVKPGDLM PATLIPPARIAVPSPLDAPOLLHFVDQYREQLTARVT  
SVEVVLDKLHGQVLSQEYQYERVLAENTRPSQMRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKGSKKGLL  
PLSS

## FIGURE 764

AACGTTCTTCGACACAAGTGATGGCCCATTTTGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTCTTAGT  
GTGCATTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGATCAAC  
ATGGAGCCCCACCATGTGTAGTCCTGTTTCAGGTGGGTCCAGTCCAGATGACATGTCCTATTGGCAGATTCTCTTCTCCGT  
CCTCAAGTCCACGAAACCTTGAAGGAGCTGGACCTAAGTGGAACTTCGCTGAGCCACTCTGCAGTGAAGAGTCT  
TTGTAAGACCCCTGAGACGCCCTCGCTGCCCTCTGGAGACCCCTGCGGTTGGCTGGCTGTGGCCTCACAGCTGAGGA  
CTGCAAGGACCTTGGCTTTGGGCTGAGAGCCAAACAGACCCCTGACCGAGCTGGACCTGAGCTTCAATGTGCTCAC  
GGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAAGCTGGTCAG  
CTGTGGCCTCACGCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCACCTGAAGGAGCTAGAC  
CTGCAGCAGAACACCTGGATGACGTTGCGCTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGCAAACTC  
ATACGCCCTGGGGCTGGACCAGACAACTCTGAGTGATGAGATGAGGCGAGGAACCTGAGGGCCCTGGAGCAGGAGAAA  
CCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACGGGAGAGATG  
AGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAGGCTAAT  
CTCAAACCTCTGGAGCTGAGCAAGATCTTCCCAATTGCTGAGATTGCAAGCAAGGCCACGAGGAAAGCTCCCA  
GAGGTAGTACCGGTGGAACCTTTGTGCGTGCCCTTCTCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGG  
ACTGACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGA  
GTTCACTTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACC  
GTTGAGATTGAAATCTGTGTGTGGGACCAAGTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGG  
CCTCTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGG  
GGCCATGTGGACACATCCTGTTTCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCTGGAGAAGCCAGCCAGG  
GTGGAGCTGCATCACATAGTTCTGGAAAAACCCAGCTTCTCCCCCTTGGGAGTCTCTCTGAAAATGATCCATAAT  
GCCCTGCGCTTCATTCCCGTCACTCTGTGGTGTGGTTTACCACCGCGTCCATCTCTGAGGAAGTCACTTCCAC  
CTCTACCTGATCCAAAGTGACTGCTCCATTGCGAAGGCCATAGATGATAGAAATGAAATTCAGTTTGTGCGA  
ATCCACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGTGCTTACACTGTGCTGGGTCTGGTTACGGGATG  
CTGGAAATACTCCCCAAGGAACCTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTCTCGGAGTTCTAC  
GTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAGACAAAGAAATGAGACTCTGGTGTGGGAGGCCCTTG  
GTGAACACAGGAAGGAACACAGCCGAGCCGTGGAACCTCAGGTGCAACAGAGACGCCAGGAGATACTAGTGCCA  
GCAGCTGCGCGCAGTACCAATGAAGCCAGAGAGGGCTTGGTGGATGACAAGGAGGCTGAGTAGACCCGAGGTGG  
GCTGAGAAAATGGGCTTAGGTGAGGCGAGTCTTTGAAGGATTGTCTTAAATCATATGCGAGATGCTCAAAAGGC  
TGGATGCTGCTTTTGTGGTGAAGAGCAAGAGAGAAAACAGGTTGTACACATACAGATGCGAGATGGAGAGACA  
GAGAAAAAAAAGGAAGAGGAGAGAAAATGCACCAATCTTGTAGCTGTATTATCTCTGGACCTTGGGATTGTGGG  
AGGCTTTATTTTACTACTGATTTTGGCTACACTGTTTCTCAATTTCTAGTTTCTACAAAGATGATGTGTTAGC  
TTTTTCACGCAAAAAGATTAAAAATTTAAAAA

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**FIGURE 765**

MRQELRALEQEKPLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKQRRLGSERAASHVAQANLKLLDVSKIFPIA  
EIAGKSHEESSPEVVPVELLCVPSPASQGD LHTKPLGTDDDFWGPTGPVATEVVVDKEKNLYRVHFFPVAGSYRWP  
TGLCFVMREAVTVEIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHF  
KEEGMLEKPARVELHHIVLENPFSPLGVLLKMIHNALRFIPVTSVLLYHRVHPPEVTFHLYLIPSDCSIRKA  
IDDLEMKFQFVRIHKPPPLTPLYMGCRYTVSGSGSGMLEILPKELELCYRSPGEDQLFSEFYVGHGSGIRLQVK  
DKKDETLVWEALVKPGRNTSQPWNLCNRDARRY

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FIGURE 766

GAATTCCTCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGGCCAGGGCGCCAG  
GGAGGCCGCCCGGGCTAATCCGAAGGGGCTGCGAGGTGAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG  
GCTCGGCTGCAGACTTGGCCAAATGACAGGGGACTATTAAAGAGGCTCTGTCTGGTGGTGAGCGACGACCACTCCCT  
CTTTGACTCAGCGTAGCGAGGGCGAGCCATCTCCCAAGGCCGACATGACTGCTCGGGGAGTCTCTGACTACGG  
GCAGCCCCACAAGATCAACCCCTCCACCACAGCAGGAGTGATCAATCAGCCAGTGGAGGTCAACGCTCAAGCG  
GGAGTAGACCACTGAATGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAAATGCAGCAAGCTGGTGGG  
CGGAGGGCGAGTCTCAACCCCATGAATACACAGCTATATGGACGAGAAGAATGGCCCCCTCTCCCAACATGAC  
CACCACAGAGAGGAGTCTATCTCCCCGACAGCCCACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA  
GTGGGCCATAAAGGAGTAGACGTTGATGGAGATCGACACATCCTTTTTCCGAACATGGATGGCAAGGAACGTG  
TAAATGAACAAGGAGGACTTCCTCCGCGCCACCACCTCTACAACACGGAAGTGTCTGTTGCACACCTCAGTTA  
CCTCAGGGAAGTTCTACTGCTGGCCTATAATACAACCTCCCAACACGACCAATCTCAGGATTGAGTGTCAAAGA  
AGACCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCGGCCTCAACAAAAGTCTCTC  
CCTTGAGGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGATCAGATCCTGGGCCC  
GACCAGCAGTCGCTAGCCAACCTTGAAGCGGGCAGATCCAGCTGTGGCAATTCCTCTGGAGCTGCTCTCCGA  
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGAGTTCAAATGACGGACCCCGATGAGGTGGC  
CAGCGCTGGGGCGAGCGGAAAAGCCCAACATGAATTACGACAAGCTGAGCGGGGCCCTCCGTTATTACTA  
TGATAAAAACATTATGACCAAAAGTGACAGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCACGGC  
CTTCGACCCACATCTCGACCGAGTGTCCATGTACAAGTACCCTTCTGACATGCTTCCATACGCTTCTTACCATGC  
CCACCAGCAGAAGGTGAACCTTTGTCCCTCCCATCCATCTCCATGCCTGTCTACTTCTCCAGCTTCTTTGGAGC  
CGCATCAACTACTGGACCTCCCCACGGGGGGAATCTACCCCAACCCCAAGCTCCCCCGCCATCTTAACACCCA  
CTGTGCTTACACTTAGGCAGCTACTACTAGAGCTTCTTCTAGCTGAAGCCCATCTGACACTTCTACAGTATGC  
TTTGGACTCAACAGGACATATGTGGCTTGAAGGGAAGACAAAACCTGGATGTTCTTCTTGTGGATAGAACCTT  
TGTATTTGTTCTTTAAAAACATTTTTTTTAATGTTGGTAACCTTTTGCTTCTCTACCTGAACAAAGAGATGAATA  
ATTCCATGGGCGAGTAGTCCAGTTTGAATCTCAGTCTCCTAGCATCTTGAGTTGCATATTAAGATTACTGGA  
ATGTTTAAGTCATGTTCTTGAGAAAGAAGCTGTACGTTTCTTTATGTTTATGACCAAGAGAGTTCTTGTGCA  
ATACACGGGGTTCAGTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTAGTGACAAATA  
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAATTCAGCGGATGGCAACTGGAACATTGATTGAAGGC  
CAGTGAAGTTTTCACCAACTGGAATTTGATGGAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAAGAA  
TCCCTCTCAGTGGACAGTAGTCACTCAGCTGACCACTCTCTAGAAATAGTCAAGATATGAATCAAGAAATTTT  
AATGCAATATACATACATTCCTGAAAGACGGGGAATTAATTAATTAATTTTTTTTTTAAATGATGACAGTGGTC  
CCAGAACTTGGAAAAGTTGTAGGAGTTCTTAAACTCAAGCAGATTGCAAGTGTGTGGCTTGTGACAGCATCA  
GACCAGGGCCACCAAATCAGAAGGCACTTACTGTATAAAATATGACAGAGTTATTTCCATATATCTCAGAGTAT  
AAAAATAAATAATTAATAATTAAGAATAAAATAACGAGTTGACCTCGGTCAAAAAGCAGTTTACTATCGAAT  
CAATCGCTGTTATTTTTTTAATGTAATTTGTACATCTTTTTCAATCTGTACATTGGGCTGTCTGTATGTT  
TTTATGCTCCTTTTTAAAGCATAAATATGCTTATAGCTGAAAAGGAACAGGGCTGTTTAAGTCACTGACTTAT  
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAGATAATCCATTTAGATCTTTA  
ATGCTTTGGAAGTGGGTGATACAGTACTGCAATAATCAGCTCTGGGAAAAACACGAAACTTTCCCTTTGGGA  
GAGGAGGATTTTCTGCTATATATAAGCAACATATTTTATGACATTAATAATATAATATTTTGCAGGTAATG  
TTGACTTTTTTAACATATATTAAGTGTTAAGCTGACAACGTGCAAGAAGACCATGTTGTAAAAATAATTTGACTAA  
ATAAATGGTTCTCTCTCAAAAAAAAAAAAAA



**FIGURE 767**

MDGTIKEALSVVSDQSLFDSAYGAAHLPKADMTASGSPDYGQPHKINPLPPQQEWINQFVRVNVKREYDHMMG  
SRESFVDCSVSKCSKLVGGGESNPMNYSYMDEKNGPPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS  
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV  
RRGAWGNMNSGLNKSPPPLGGAQTI SKNTEQRPQDPYQILGPTSSRLANPGSGQIQLWQFLLLELLSDSANASCI  
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPTE  
SSMYKYPSDISYMP SYHAHQKQVNFVPPHPSMPVTSSSFFGAASQYWTSP TGGIYPNPVPRHPNTHVPSHLGS  
YY

## FIGURE 768

GTTTGTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA  
ACCAGCGGTTACCA**ATGG**AGGGGATCAGTATATACACTTCAGATAACTACCCGAGGAAATGGGCTCAGGGGACTA  
TGACTCCATGAAGGAACCCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCAACCATCTACTC  
CATCATCTTCTTAAGTGGCAITGTGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAG  
CATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTGCATCAGCTTCCCTTCTGGGCACT  
TGATGCCGTGGCAAACCTGGTACTTTGGGAACTTCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTA  
CAGCAGTGTCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG  
GCCAAGGAAGCTGTGGCTGAAAAGGTGGTCTATGTTGGCGCTGGATCCCTGCCCTCTGCTGACTATTCCCGA  
CTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT  
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCTGCTATTGCAT  
TATCATCTCCAAGCTGTACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT  
GGCTTTCTTCGCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA  
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCATCACCGAGGCCCTAGCTTTCTTCCACTGTTG  
TCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAAACCTCTGCCCAGCAGCACTCACTCTGTGAG  
CAGAGGGTCCAGCTCAAGATCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC  
TTCAAGTTTTCACCTCCAGCT**TAAC**ACAGATGTAAAGACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTAC  
ACATTTTTTCAGATAAAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTGGATTTTTGTCTTGTGTTTCT  
TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGGTTTCATATTGATGTGTGCTAGGCAGGA  
CCTGTGGCCAAGTTCCTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACCTGAACATCCAGACGCT  
GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGTCATAGATAATCTCTCCATTCCCGTGGAACTG  
TTTTCCGTCTCTTAAGACGTGATTTTGTGTAGAAGATGGCACTTTATAACCAAAGCCCAAAGTGGTATAGAAATG  
CTGTTTTTTCAGTTTTTCAGGAGTGGGTGATTTCAGCACCTACAGTGACAGTCTTGATTAAGTTGTTAATAAA  
AGTACATGTAAACTTACTTAGTGTATG

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**FIGURE 769**

MEGISIYTSO NYTEEMSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMIDK  
YRLHLSVADLLFVITLFFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL  
LAEKVVYVGVWIPALLTIPDFIFANVSEADDRYICDRFYFNDLWVVVFQFHIMVGLILPGIVILSCYCIISK  
LSHSGHGQKRKALKTTIVILILAFFACWLPYYIGISIDSFILLEIKQGCEFENTVHKWISITEALAFFHCCLNP I  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

## FIGURE 770

TGCTGCTGAGGGTGGAGACCCAGAGCCGAGGCCCTCCTGCAGTGTCTTCTGCACAGCAAACCGCACGCTATGCTG  
ACAGCCGGGATCCCGCCAGCGACCATGACGACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGCTCTGA  
CCACTGGAGCTGGTAACCCAGTAGGAGACAAACTTAATGTTATTACAGTAGGGCCCGCTGGGGCCCTCTCTGTTTC  
AGGATGTGGTTTTTCACTGATGAAATGGCTCAATTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG  
GAGCAGGGGCCCTTTGGCTACTTTGAGGTACACATGACATTACCAAACTACTCCAAGGCAAAGGTATTTGAGCATA  
TTGGAAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG  
ACCCCTCGTGGGTTTGCAGTGAATTTTACACAGAAGATGGTAACCTGGGATCTCGTTGGAATAACACCCCAATTT  
TCTTCATCAGGGATCCCATATTGTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG  
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTCTTGTTCAGTGATC  
GGGGGATTCCAGATGGACATGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG  
AGGCAGTTTATGCAAATTCATTATAAGACTGACCAAGGCATCAAAACCTTTCTGTTGAAGATGCGGCGAGAC  
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAGTACCCCTCTCGGA  
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTCCATTTAATCCATTTCGATCTCACCAGGTTT  
GGCCTCACAAGGACTACCTCTCATCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG  
AGGTTGAACAGATAGCCTTCGACCCAAAGCAACATGCCACCTGGCATTGAGGCCAGTCTCTGACAAAATGCTTCAGG  
GCCGCTTTTGGCTATCTCTGACACTCACGCCATCGCCTGGGACCAATTATCTTCATATACCTGTGAAGTCTC  
CCTACCGTCTCGAGTGGCCAACTACCAGCGTGTGGCCCGATGTGCATGCAAGGCAATCAGGTTGGTGCTCCAA  
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTTGCCCCTGGAGCACAGCATCCAATATTCTGGAG  
AAGTGGGAGATTCAACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG  
AGGAACAGAGGAACGCTCTGTGTGAGAACTATGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG  
CGGTCAAGAACTTCACTGAGGTCCACCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAAGTACAATGCTG  
AGAAGCCTAAGAAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTTGGCGGCAAGGAGAAGGCAAAATCTGT  
GAGGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT  
CTCCTGTGCTAGATGTGCAAAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA  
ACAAATTTAATGCTATTTCCCGAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAATTTGTTTT  
GACGGATGATTGGATTATTCAATTTAAATGATTAGAAGGCAAGTTTCTAGCTAGAAAATGATTTTATTGTGACAA  
AATTTGTTGAAATTAATGATGTTTACATATCACCTCATGGCCTATTATATTTAAATATGGCTATAAATATATAAA  
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTATTTTCTAAGGTTCTCATAGGAAAAGTACATTTTAATACA  
GCAGTGTATCAGAAGATAACTTGAGCACCGTCTATGGCTTAATGTTTATTCCTGATAAATTTGATCAAATTCAT  
TTTTTTCATGGAGTTACATTAATGTTAATTCAGCACTGATTTTCAACAGATCAATTTGTAATGCTTACATTT  
TTACAATAAATAATCTGTACGTAAGAACA

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**FIGURE 771**

MADSRDPASDQM~~Q~~HWKEQRAAQKADVLTTGAGN~~P~~VGDKLNVITVGP~~R~~G~~P~~LLVQDVVFTDEMAHFD~~R~~ERIPERVVH  
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTV~~R~~DP~~R~~GFAVKFYTEDGNWDLVGNNT  
PIFFIRDPILFPSFIHSQKRN~~P~~QTHLKD~~P~~DMVWDFWSLRPESLHQVSFLFSDRGIPD~~G~~HRHMNGYGSH~~T~~FKLVNA  
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGI~~R~~DLFN~~A~~IATGKYPSWTFYIQVMTFNQ~~A~~ETFPFN~~P~~FDLT  
KVWPHKDYP~~L~~IPV~~G~~KLVLN~~R~~NPVNYFAEVEQIAFDPSNMPPGIEASPD~~K~~M~~L~~QGRL~~F~~AYPD~~T~~HRHRLGPNYLHIPV  
NCPYRARVANYQRD~~G~~PMC~~Q~~DNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDN~~V~~IQVRAFYVNV  
LNEEQ~~R~~KRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA  
NL

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FIGURE 772A

ACAGCACAGACAGATTGACCTATTGGGGTGTTCGCGAGTGTGAGAGGGAAGCGCCGCGGCTGTATTCTAGAC  
CTGCCCTTCGCTGGTTCGTGGCGCCTTGTGACCCCGGGCCCCCTGCCGCTGCAAGTCGGAATTCGCGTGTGCT  
CCTGTGCTACGGCCTGTGGCTGGACTGCCTGTGCTGCCAACTGGCTGGCAAGATGCAAGCTCTCCCTGGTGGCC  
GCGATGCTGTGCTGCTCAGCGCGCGCGCGCGCGAGGAGGAGCAAGAAGGACGAGCTGGGACGGGTGGCGG  
ATCGACCTGGGGACCACCTACTCTGCGTCGCGCTGTTCAGAAGCGGCGCGTGGAGATCATCGCCAAAGATCAG  
GGCAACCGCATCAGCCGCTCCTATGTGCGCTTCACTCTGAAGGGGAACGCTGTATTTGGCGATGCCGCAAGAAC  
CAGCTCACCTCCAAACCCGAGAACACGGTCTTGACGCGCAAGCGGCTCATCGGCGCGACGTGGAAATGACCGCTCT  
GTGCAGCAGGACATCAAGTTCTTGCCCTTCAAGTGGTTGAAAAGAAAACCTAAACCATACATTCAGTTGATATT  
GGAGGTGGGCAAAAGACATTTGCTCCTGAAGAAATTTCTGCCATTGGTCTCTACTAAAAAGAAAGAACCGCT  
GAGGCTTATTTGGGAAAGAGGTTGACCATGCACTGTTACTGTACCAGCTATTTTATGATGCCCAACGCCAA  
GCAACCAAGACGCTGGAACATTGCTGGCCTAAATGTTATGAGGATCATCAACGAGCCTACGGCAGCTGCTATT  
GCTTATGGCTGGATAAGAGGGAGGGGAGAGAACAATCTCTGGTTTGAAGCTGGTGGCGGCAAACTTCGATTGTG  
TCTCTTCTACCAATTGACAATTTGGTGTCTTGAAGTTTGGGCACTAATGGAGATACTCATCTGGGTGGAGAAGAC  
TTGACCGAGCTGTCTATGGAACATCTCATCAACTGTACAAAAAGAACGGGCAAGATGTGAGAAAGACAAAT  
AGAGCTGTGCAGAAACTCGGCGGAGGTAGAAAAGGCCAAACGGGCCCTGTCTCTCAGCATCAAGCAAGAAT  
GAAATTGAGTCTTCTATGAAGGAGAAGACTTTTCTGAGACCTGACTCGGGCCAAATTTGAAGAGCTCAACATG  
GATCTGTTCCGGTCTACTATGAAGCCCGTCCAGAAAGTGTGGGAAGATTCTGATTTGAAGAAGTCTGATATTGAT  
GAAATGTGTTCTGTTGGTGGCTCGACTCGAATTCCAAAGATTACGCAACTGGTTAAAGAGTCTCTCAATGGCAAG  
GAACCATCCCGTGGCATAAACCCAGATGAAGCTGTAGCGTATGGTGTCTGCTCCAGGCTGGTGTCTCTGGT  
GATCAAGATACAGGTGACCTGGTACTGCTTGATGTATGTCCCCCTACACTTGGTATTTGAACCTGTGGGAGGTGTC  
ATGACCAAACTGATTCGAAGGAACACAGTGGTGCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAAT  
CAACCAACTGTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAGACAAATCATCTCTGGGTACATTT  
GATCTGAGTGAATTTCTCTGCTCCCTGCTGGGGTCCCAAGATGAAGTCACTTTGAGATAGATGTGAATGGT  
ATTCTTCGAGTGACAGCTGAAGAACAGGGTACGGGAACCAAGATACCAATACCAATGAGGCAAGTATCGC  
CTGACACCTGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTTGTCTGAGGAAGACAAAAGCTCAAGGAG  
CGCATTGATACTGAATAGTTGGAAAGCTATGCTATTCTCTAAAGAAATGATGGAGTAAAGAAAAGCTG  
GGAGGTAAACTTTCTCTGAAGATAAGGAGACCATGGA AAAAGCTGTAGAAGAAAAGATTGAATGGCTGGAAGC  
CACCAAGATGCTGACATTGAAGACTCAAAGCTAAGAAGAAGGAACCTGGAAGAAATTTGTTCAACCAATATTGATCAG  
AACTCTATGGAAGTGCAGGCCCTCCCCAACTGGTGAAGGATACAGGACAAAAGATGAGTTGATGACAGT  
ATCTGCTAGTGTCTGAATATTGTAATACTGGACTCAGGAACCTTTGTTAGGAAAAAATGAAAGAACTTAAGTC  
TCGAATGTAATTGGAATCTTCCACTCAGAGTGGAGTTGAAACTGCTATAGCTTAAGCGGCTGTTTACTGCTTTTC  
ATTAGCAGTTGCTCAGATGCTTTTGGGTGGGGGGAGGAAGAAGAAATTTGGCCATCTTAAAAAGCAGGTAAAAAAC  
TGGGTTAGGGTGTGTGTTCACTCTCAAATGTTCTATTAAACAACTGGGTCTATGTGATCTGTGTGAGGAAGTTT  
TTTCTACCATAAGTGACCAATAAATGTTTGTATTACACTGGTCTAATGTTTGTGAGAAGCTTCTAATTTAGA  
TCAATGCTATTTTGAAGAAATTTAGACTAGATCTCTGTGTGGGGTGAAGGGGAGGAGTATTTGATGTGTG  
GGATAAGGAACACTTCTATTAAATGCTTCCAGGGATTTTTTTTTTTTTTTTAAACCCCTCTGGGCGCAAGCTGA  
TCCTTCCACCTCAGTCTCCAGCTAATTTAGACCAAGGCTGTTACCACCTAGCTCGGCTTTTGATTAATCTA  
AGAAAAGGGAGAGAAGTTATGTCACATCTTTACTCAGGCAAGGGGCTTTTACAGTGCCCAAGAGTGGGGTTTT  
CTTGAACATACCTTGGTTTCTTATTTCCCTTATCTTTCTAAAACCTGCCTTTCTGGTGGCTTTTTTTAAAAATTATT  
ACTAATGATGCTTTTATAGCTGCTTGGATTCTCGAGAAATGATGGGAGTGAAGTATCATCTGATTAATCTTTA  
TACATTTGGATTTCATTGTAACTTTAGGATGTAAAGGTATATTGTGAACCTTAGCTGTGTCAGAACTCCATCC  
CTGAATTTCTCATTAGGTGATGTTGGGGTGGGATCTGGATGGTGACATTGAAACTACACTAAATCCCTCACTA  
TGAATGGGTTGTTAAAGGCAATGGTTTGTGTCAAACCTGGTTTAGGATTACTAGATTGTGTTCTCTGAAGAAAAG  
AGTCCAGGTAAATGGTATGATCAATAAAGGACAGGCTGGTGTCAACATAAAATCCAATATTGTAATCTTAGCAT  
TTGGGAGGCCAAGGCGGGTGGATCACAAGGTCAAGAGATAGAGACCATTTTGGCAACATGGTGAACCTCCATCT  
CTACTGAAAATACAAAATTAGCTGGCGGTGGTAGTGCAGGTGAGGCTTGCCAGGAGGAATCACTCGAACCCG  
GGAGGCAGAGGTTGACGTGAGCCGAGATCACACCACTGTACTCCAGCCCGGCACCTCAGCCTGGCGACAAGAGTG  
AGACTCCACCTCAAAAAAAGAAATCCAATACTGCCCAAGGATAGGTATTTTATAGATGGGCAACTGGCT

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**FIGURE 772B**

GAAAGGTTAATTCTCTAGGGCTAGTAGAACTGGATCCCAACACCAAACCTCTTAATTAGACCTAGGCCTCAGCTGC  
ACTGCCCCGAAAAGCATTGGGCAGACCCCTGAGCAGAATACTGGTCTCAGGCCAAGCCCAATACAGCCATTAAAGA  
TGACCTACAGTGCTGTGTACCCCTGGGGCAATAGGGTTAAATGGTAGTTAGCAACTAGGGCTAGTCTTCCCTTACC  
TCAAAGGCTCTCACTACCGTGGACCCTAGTCTGTAACCTTTCTGAGGAGCTGTTACTGAATATTAAAAAGAT  
AGACTTCAAAAAAAAAAAAAAAAAA

**FIGURE 773**

MKLSLVAAMLLLLSAARAEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERL  
IGDAAKNQLISNPENTIVFDAKRLIGRIWNDFSVQQDIKFLPFKVVEKKTTPYIQVDIGGGQTKTFAPEEISAMVL  
TKMKETAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGTIAGLNVMRIINEPTAAAIAYGLDKREGEKNIIVFDL  
GGGTFDVSLTIDNGVFEVVATNGDTHLGGEDFDQVRMEHF IKLYKKKTGKDVVRKDNRAVQKLRREVEKAKRALS  
SQHQARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVGGSTRIPKIQQLV  
KEFFNGKEPSRGINPDEAVAYGAAGVLSGDQDTGDLVLLDVCPLTLGIEVGGVMTKLIPRNTVVP TKKSQI  
FSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKIT  
ITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSDEKETMEKAVEE  
KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL



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FIGURE 774A

TCTCACTATAGGGCTCGAGCGGCCGCCGGGAGGTCTGACCACAGTGGTTCGGGGGAGAAGCCTTCCAGGACCC  
ATGTGTAGGCACAACCTGTTTTCCCTGATCAGGATACTTCCGGCACTCAACAGAGGAAAGAAATTCCTAAGGGAAC  
ACTGCTCAGAAAGTACTCGCAGCATGTCTTCAAAATGCCTGAGGATCAAGTTGAAAACTAGAAACACAGAAAAACA  
CAATAAGCGCAATGCGCGCGCGCGCGGAGCAGCAACAGTTCTACTGCTGCTGGGAAACCTGCTCAGCCCGG  
ACAATGTGTGCCGGAACAGGCAGAGGAAACCTATGAGAAATATCCAGGCCAGTCAAAGATCACATTCCTCTTAC  
AAGCCATCAGAAATACAACAGCTCTGTAAGAGGGCTAGACAAATGGCCGGCTTCTCTTAAGACGCTCTTGTGCTCT  
CTGCAATTGATGAAGTCTATCCAGCATCTCCCTCTGATGTTTCAGACTCAAGATCAAGTACTCATGATTA  
TTCAGATGGAACACAATCTAGCATGAGGAAAAAGTTTGTGATATTGCGGCAGAACTGGCCAGGAATTTAATAG  
ATGAGGATGGCAATTAACAGCTGGCCGGAAGTTTGAAGTTCCTTTTGTATTGATCAGTCAGCTCTCAAAATGTGGGAC  
TGGCGGAAGCTGCCCTTCACATTTCTTGGAACTTTCCCTGGAATTTTGGGAACAGCAACAACACTATTAGATG  
TCATCAACGAATGTTAGTTGATGTCAGTGTATGCAAGATCAGGAACACCCGTCGATCAGGACGTTATCTGCTAGAGCTA  
CAGCTGCATTATATACTTGCAAAATGAGCATAATGTTGCTCTGTTCAAACATTTTGCGAGACTTGCTACCCGGGATCTC  
TACAGGCGGTAATAAGTACTCGTGCTACCAAGATGATGATTCTGCTCTTAAATCCCTCGTTGAGATGTCAGATACTG  
TTCCAAAGTATTTGGCTCCTCACTTGGGAAGCACTCTACAGCTAAGTCTAAAGTTGTGTGGAGACACTAGCATGATTA  
ACAATATGCAACGCCAGCTTGCCTTGAAGTGATCGTACCCCTCTGAGACTGCGACTGCTGATTTGAAGAACAAC  
ATACCAATATTGTTGCAACAGACTATCTCCAGATGTTAGCAATGATGGTTGATTGGAAGAAGATGAGGACTGGG  
CAAATGCAGATGAACAGAAATGATGATTTTGACAGCAATGCAAGTGGAGCGCAGAGTGCTCTAGATCGAATGG  
CTTGGCGGACTTTGGTGAAAGCTCGTTCTGCCGATGATCAAGGAACACATTATGCAAAATGCTTCAAAATCCTGACT  
GGAAATACCGGCATGCGAGGATTGATGGCCTTATCTGCCATTTGGTGAAGGGTGCCACCAGCAAAATGGAAGGAATC  
TAAATGAGATCGTAATTTTGTGTTTACTTTTTCTCCAGGATCCTCATCCAAAGATTAAGGTATGACGCCCTGTGAATG  
CCGTGGGACAGATGGCTACAGATTTTGACCTGGTTTCCAAAGAAATTTTCATGAGAAGGTGATGTCAGCTCTGC  
TGCAGACCATGGAAGACCAAGGCAATCAACGTGTGACGGCCCATGCAAGTGTGCGCTCATTAACTTTACTGAAG  
ACTGTGCCAAGCTCACTACTTATTCCTACTTGGATAATTTGGTGAACATCTGCAATTCCTATTGTTACTGACTGAAGC  
TTCAAGAGCTGATTGAGAAAGGCAACCAAGTTAGTTTGGGAACAAAGTTGATGATCCATGCTGATCAGTTGCCGATA  
CTGCAGAGAAAAATTTGTCCCTTACTATGATTTATTTATGCCATCACTGAAGCAGATCGTTGAGAAATGCGGCTC  
AAAAAGAACTGAGACTTCTGAGAGGAAAAACTATTGAATGCATTAGCCTCATTGGTCTGGCTGTTGGGAAGGAAA  
AATTCTATGAGGATGCATCAGATGTGATGCAGCTTTTGTAAAGACCCAGACAGACTTCAATGATATGGAAGATG  
ATGATCCTCAGATCTCTTACATGATCTCAGCATGGGCCAGAAATGTGCAAAATCCTTGGAAAGAAATTTTCAGCAAT  
ACCTTCAGTGGTTATGGGGCCCTTATGAAGAACGGCTTCAATTAAGCCGGAAGTCCCTTTTATGATACCAAG  
ACATGGAGAATATGAGTGATGATGGTTGGGAATTTGTGAACCTTGGAGATCAGCAAGCTTTGGTATTAAAA  
CTGCAGGACTAGAAGAAAAATCAACTGCTTGCAGATGTTGGTTGCTATGCTAAGGAGTTAAAGGAAGGCTTTG  
TGGAGTACCCGACAAGTGTGTCAAACTGATGGTCCCTTTACTGAATTTTATTTCCACGATGGTGTTCGAGTGG  
CAGCAGCGGAATCCATGCCTCTTCTCTGGAGTGTGCAAGAGTCCGTGGTCTGAGTATCTCACACAGATGTGGC  
ATTTTATGTGTGATGCTCTAATTAAGGCCATTGGTACAGAACAGATTCAGACGTCCTCTCAGAAATAATGCATT  
CTTTTGAAGTGCAATTGAAGTAATGGGAGATGGATGCTCTTAATTAAGGATCCTTTGAAGAACTGGGAGGTATAT  
TGAAAGCAAAGCTTGAAGAACAATTTAAAAATCAAGAATTACGACAAGTTAAAGACAAAGATGAAGCATATGATG  
AACAGGTCCGAAGTCACTACAAGATGAGGATGATAATGATGTTTATATTCTGACCAAAAGTGCAGATATTTTAC  
ACTCAATATTCAAGTACTACAAAGAAAAAGGTGTTACCATGGTTTGAACAGCTGCTTCCATTAAATGTCAACCTAA  
TTTGTCCACATAGACCATGGCCAGACAGACAAATGGGATTTAGTCATCTTGTATGATGTCATGAAGAACTGTAGTC  
CAGCCTCATTAAATACGAGAATATTTCTTAAGACCAATGCTCCAATATGATGTGACAAACAGGCCAGAACTCA  
GGCAAGCAGCTGCATATGGCCTGGGAGTCATGGCACAGTACGGTGGAGATAATTATGCGCCTTTTGTACAGAAG  
CACTTCCCTGCTGGTAAAGATTTATCAGTCTGCGGATTTCTAAGAACCAAGAAATGTCAATGCTCAGAGAACT  
GCATCTCAGCAGTAGGGAATAATGAAGTCTCAAGCTGACTGTGAACGTTGAAGAGCTCTCCACACTGCTGCTGGT  
TGCTTGGCTTCCACTACATGAAGTAAAGAAGAAGCTGTTTCAGACTTTCAATTATCTGTGTGACCTGATTGAAA  
GTAATCATCCAATTGTTCTTGGGCCCAACAAATACCAATCTGCCCAAAATATTAGTATAATTGCGGAAGGAGAAA  
TGCAGAGGCAATTAAACATGAAGATCCTTGTGCCAAACGCTGTGCCAAATGTGCTTGGCCAAAGTACAGCTCTG  
GAGGACTGTGGACTGAGTGCATAGCACAGCTCAGTCTGTGACGACAGGCCGCCATTACGAGGCTCTGAACTCTG  
CGTGAAGGGCCTTATATGTCACCCACAGAAAACTAACTCCAAATAAACGCTTACCTTTCTTTAGGTTTCTTTG

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**FIGURE 774B**

TTTTGTTTTTTGAGCAAAAGAGATCGGTAGTGTGTGTGTAGGCCATTCTTCIGGAGAGCCACAAGCAGGAAGAGC  
AGCGCTGTGTTGCAGAAATGGAGTTTCCATGGATTTCTACCAGACCACTGAAGGAGTTCCTGGAAGCCCTGCGTAC  
GTAGCACTGAAGACTATTTTTCTATTGGTATAACCGCCACCTGAAGGGGAAAGGGAATCAAATTAATTTTTTC  
TCGTTAGACATAAGGAAATTTAAGGAAAAACAGCTTTAAGAACAGTTACTCAGCGTAGATGTGTGTTACACAAAA  
TTGCCTTGCAATTCAGTGTTCATTGTGAATTGGGAGTGTGAGTCTTTCTGTAGGGTACAAAGAAGCCTCCTACCCA  
GCAAAACAGTAGACCCAAAAGTTGAAAAAACTGGATGACAGACAACAAGCATGAAGATGGCATATTTGATGTCA  
CTTTGGTTCTTTTTCCAGAAGGCTTATACAGTGAAGTCTCAGCGGAAGCTTCCAGCTTCAGCCCTTGAATGTGA  
AGTGTCAATGGCATGTCTGGCAGTAGTCTCTCATTCACTCCCAATAACAACATTGAATACAAAAGAGGCTTGTG  
TAAAAACTCAGTACTGTCTGGCTTGGATTCAATTCATGTTTTTTAATATAAGAATGATCTAATATTTTTTAAAG  
TAATAGCTATCAGTAATAGCTGAGTGTTTTTTCCCTAATATTTTCCTGTGCAATTCAGACTTAAGCATCGAGT  
TTTTACCATCTTCCACTTTAAGCTAAGTTATGATACCTATTCATTACAAATGGTGTCTTTTTAAGGTTTGCA  
AATTTAGCCAATTTTGTAGCTAAGATTGTTCTGATCAGCTCAAAAAGATTGGCTTAGTGTTCATTGCAAAAT  
TATAATTGCTGTAGAGCCACACACAACCTTTTGAACTTTTAATTATAAGTGTATGGCTAAAAGTTATTTACTGAAA  
ATTTTCAGTAAATGTGTGAATGTTTCTTTATGTATTAACCTCATAGCAGTAAATGACTTGCTGTTGTTTAATTTT  
TCTAAGGCATCTTAATAGACTTCTCTGGAAAAACCTTCCAAGGTGTTAACATTTTTATAGTTTGTAATAATT  
TAACCGTGATATAAAATGAATTTTATGCATAGATCAGAATTTTAAATTAAAGGTTTTTCTTTAAAAA  
AAAAAAAAAAAAAAAAAAAAA

**FIGURE 775**

MAAAAEQQQFYLLGNLLSPDNVVRKQAEETYENIPGQSKITFLQAIRNTTAAEEARQMAAVLLRRLSSAFD  
EVYPALPSDVQTAIKSELLMIIQMETQSSMRKKVCDIAAELARNLIDEDGNNQWPEGLKFLFDSVSSQNVGLREA  
ALHIFWNFPGIFGNQQQHYLDVIKRMVLVQCMQDQEHPSIRTLSARATAAFILANEHNVALFKHFADLLPGFLQAV  
NDSCYQNDSDSVLKSLEIADTVPKYLRPHLEATLQLSLKLCGDTSLNNMORQLALEVIVTLSETAAAMLRKHTNI  
VAQTIPQMLAMMVDLEEDWDANADELEDDDFDSNAVAGESALDRMACGLGGKLVLPMIKEHIMQMLQNPDKYR  
HAGLMALSAIGEGCHQMEGILNEIVNFVLLFLQDPHPRVRYAACNAVQMATDFAPGFQKKFHEKVIAALLQTM  
EDQGNQRVQAHAAAALINFTEDCPKSLLIPYLDNLVKHLHSIMVLKLQELIQKGTKLVLQVVTISIASVADTAE  
KFVPYYDLFMPSLKHIVENAVQKELRLLRGKTIECISLIGLAVGKEKFMQDASDVQMLLLKTQTFDNMEDDDPQ  
ISYMISAWARMCKILGKEFQQYLPVVMGPLMKTASIKPEVALLDQDMENMSDDDGWEFVNLGDQQSFGIKTAGL  
EEKSTACQMLVCYAKELKEGFVEYTEQVVKLMVPLLKFYFHDGVRVAAAESMPLLECARVRGFEYLTQMWHFMC  
DALIKAIGTEPDSVLEIMHSFAKCIENVMDGCLNNEHFEELGGILKAKLEEHFKNQELRQVKRQDEDYDEQVE  
ESLQDEDDNDVYILTKVSDILHSIFSSYKEKVLWPFEQLLPLIVNLICPHRPWPDRQWGLCIFDDVIEHCSPASF  
KYAEYFLRPMLQYVCDNSPEVRQAAAYGLGVMAQYGGDNYPFCTEALPLLVRVIQSADSKTKENVNATENCISA  
VGKIMKFKPDCVNVVEVLPHWLSWLP LHEDKEEAVQTFNYLCDLIESNHPIVLGPNNNTNLPKIFSI I AEGEMHEA  
IKHEDPCA KRLANVVRVQVTSGLWTECIAQLSPEQQAIIQELLSNA

## FIGURE 776A

CGAAGGACCTGAAGGAAAGTGAAAAGTCCAAAGTTTAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATC  
CATGCCAGATATTGACCTGAATCTCACAGGTCCAAAAATAAAGGAGAGTGTGGATGTTACAGGCCCTAAGGTAGA  
GGGAGATCTGAAAGGTCCTGAAGTTGACCTCAAAGGCCCCAAAGTGGACATTGATGTGCCAGATGTTAATGTCTCA  
GGGTCCAGACTGGCACCTGAAGATGCCCCAAGATGAAAATGCCTAAGTTCAGATGCCTGGCTTCAAAGGAGAGGG  
CCCAGATGGTGGATGTGAAGCTGCCCATAGGCTGACATTGATGTCTCAGGACCAAAGTGGACATTGAAGGCCCTG  
ATGTTAAACATTGAAGGACCAAGGGAAAGTTGAAAGGGCCCTAAGTTCAGATGCCCAGAGATGAATATCAAAGCCC  
CCAGATCTCCATGGCTGATATTGCTTAAACCTCAAAGGACCCAAAGTGAAGGCTGATGTGGATGTTTCCCTTCC  
TAAAGTGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCAAAGTGGACATTGACGCACCTGATGT  
TGATGTTCTAGGCCAGACTGGCACCTAAAGATGCCCAAGATGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAA  
AGCAGAGGGCCCTGAAGCTGGAATGTGAACCTGCCCAAGGCTGACGTGATGTCTCAGGCCCCAAAGTGGATATT  
AATGCCCCAGATGTGGGTGTTCAAGGGCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCAAAGTTCAGC  
ATGCCTGGCTTCAAAGGAGAGGGGCCAGATGGGGATGTGAAGCTGCCCAAGGCTGACATTGATGTCTCAGGACCC  
AAAGTGGACATTGAAGGCCCTGATGTTAAACATTGAAGGACCAAGGGAAGTTGAAAAGGCCCTAAGTTCAGATG  
CCAGAGATGAATATCAAAGGCCCCAAAGATCTCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAG  
GGTGATGTGGATGTTTCCCTTCTTAAAGTGAAGGTGACCTCAAGGGCCCAAAGTGGACATTGACATCAAGGGCCCAA  
GGTGACATTGACGCACCTGATGTTGATGTTTCATGGCCAGACTGGCACCTAAGATGCCCAAGATAAAAATGCC  
AAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGATGTGGACGTGAACCTGCCCAAGGCTGACATTGATGTCT  
TCAGGACCAAAGTGGATGTGTAATGTCCCGATGTGAATATCAGAGGACCTGAAGGAAAAGTGAAGAAATGCCAAG  
TTTAAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATCCATGCCAGATATTGACCTGAATCTCACAGGTCCA  
AAAAATAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGAGGGAGATCTGAAAAGGTCCTGAAGTTGACCTCAA  
GGCCCAAAGTGGACATTGATGTCCAGATGTTAATGTTCAAGGTCCAGACTGGCACCTGAAGATGCCCAAGATG  
AAAATGCCAAAGTTCAGCATGCCTGGCTTCAAAGCAGAGGGGCCCTGAAGTGGATGTGAACCTGCCCAAGGCTGAC  
GTTGATGTCTCAGGCCCCAAAGTGGACGTTGAAGGCCCTGATGTTAAACATTGAAGGACCCAGAGGGAAAAGTTGAAA  
GGGCCCAAAGTCCAGATGCCAGAGATGAATATCAAAGGCCCCAAAGATCCCCATGCCTGACTTTGATTTGCATCTG  
AAAGGTCCCAAGGTGAAGGGCGATGTGGATATTCTCTGCCCAAAGTGAAGGTGACCTCAAGGGCCCTGAAGTT  
GACATCAGGGGTCCCAAAGTGGACATTGATGTCCCGGATGTGGGCGTTCAAGGCCAGACTGGCACCTAAAAATG  
CCCAAAGTGAAAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGAGGGGCCAGATGTGGATGTGAACCTGCC  
AAGGCTGACCTTGATGTCTCAGGACCCAAAGGTGGACATTGATGTTCCAGATGTGAATATCGAAGGCCAGAGGGA  
AAGTTGAAGGTCCCAAATTCAAAATGCCTGAGATGAACATCAAAGCCCCAAAGATCTCCATGCCCTGACATTGAT  
CTTAACTGAAAGGTCCCAAAGTGAAGGGTGACATGGATGTGCTCTGCCCAAAGGTGAAGGTGACATGAAAGTT  
CCTGACGTGGATATTAAGGGCCCCAAAGTGGATATTATGCCCCAGATGTGGATGTTCAAGGCCAGACTGGCAC  
CTGAAGATGCCATAAATAAATGCCAAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGAGGTGGACGTG  
AACCTGCCCAAGGCTGACCTTGACGTCTCAGGACCCAAAGGTGGACGTTGATGTTCCAGATGTGAATATTGAAGGT  
CCAGATGCGAACTGAAGGGGCCCTAAATTCAGATGCCAGAGATGAACATCAAAGGCCCCAAAGATCTCCATGCCT  
CAGTTTGATTTGCATCTGAAGGGCCCTAAGGTGAAGGAGATGTGGATGTTTCTGCTGCTTAAGATGGAAGTGGAT  
CTAAAGGGTCTGAAGTTGACATCAAGGGGCCCAAAGTGGACATTAACTGCTCCAGATGTGGATGTTCAAGGGCCA  
GACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGGAGAGGGGCCAGAT  
GTGGATGTGAACCTGCCAAGCTGACCTTGATGTCTCAGGACCCAAAGTGGACATGTGATGTTCTGATGTGGAT  
ATCCGAAGGTCCAGAAGGGAAACTGAAAGGTCCCAAATTCAGAATGCTTGAGATGAGCATCCAAGGCCCAAAGAT  
CTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCTTCTCTAAAGT  
GGAAGGTGACCTCAAAGGGCCCAAGCTGACATCAAGGGCCCAAAGTGGACATCAACACCCCTGATGTGGATGT  
TCATGGCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGA  
AGGCTCAGATGTGGATGTGAACCTGCCCAAGGCTGACATTGATGTCTCAGGACCCAAAGTGGACATTGATGTTCT  
TGATGTGAATATCGAAGGTCCAGATGCCAAACTGAAGGGCCCAAAGTTCAGATGCCTGAGATGAGCATCAAAGC  
CCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCTT  
TCTTAAAGTGAAGGTGACCTCAAAGGGCCAGAAGCTGACATCAAGGGCCCAAAGTGGACATCAACACCTCTGA  
TGTGGATGTTTATGGCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTT  
CAAAGGAGAAGGTCCAGATGTGGATGTGAGCTGCCCAAGGCCGACATCGATGTCTCGGGACCCAAAGGTGGACCT

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**FIGURE 76B**

TGATATTCCAGATGTGAATATCGAAGGTCCAGACGCAAACTGAAGGGCCCCAAGTTCAAGATGCCTGAAATAAA  
TATCAAAGCTCCCAAGATCTCCATACCTGATGTTGACCTGGATTGAAAGGACCCAAAGTAAAGAGGAGATTTTGA  
TGTGTCGTCTCCATAGAGTTGAAGGGACCTTTGAAAGGCCCAGAAGTAGACTTTAAAGGTCACAGCTCTGGATTTCGA  
AGGCCCTGATGCGCAAACTCAGTGGGCCCATCTTTGAAGATGCCATCGCTGGAGATATCTGCTCTCAAAGTAAACTGC  
TCCTGATGTGATTGTCATCTCAAGGCACCAAAAATTTGGATTTTTCAGGTCGGAAGTTAGAAGGTGGTGAAGTGA  
CCTCAAGGGACCCCAAGTTGAAGCTCCAAGCTTAGATGTACACATGGACAGCCAGCATATTTACATCTCGAAGGGCC  
AGATGTTAAATCCCAAATTTAAGAAACCCAAAGTTTGGATTGGGGCAAAAAGCCCAAGCTGCACATCAAGTCT  
ACCTTCACTGGATGTCACGTGTTCTTGAGGCAGAGCTGAACCTTGAGACTCCTGAAATTAGTGTGTGGTGGCAAGG  
CAAGAAAGATAGTTTAAATAGCCTAAATTCATATGAGTGGTCTTAAGATTAAAGGCCCAAAAAACAGGGATTG  
ACCTGAATGTTCTGGGGGTGAAATGTATGCCAGCTCAAGGCTCCGGATGTAGATGTCAACATCGCAGGGCCGG  
ATGCTGCACCTCAAAGTCGACGTGAAATCGCCCAAAACCAAGAAACGATGTTTGGAAAAATGTACTTCCAGATG  
TAGAGTTTGACATTAATACCTAAATTTAAAGCTGAGGGCCCCCTCTCCCTAGCCCCAAAGCTGGAGGGTGAACCTC  
AGGCACCTGATCTGGAACCTTTCTTTGCCAGCGATTACGCTCGAAGGCTCTTGACATCAAGGCGAAGGCTCCCAAG  
TCAAGATGCCAGATGTGGACATCTCAGTGCCAAAAATAGAGGGTGACCTGAAAGGGCCCCAAAGTGCAGGCAAACT  
TGGGTGCACCTGCATCAACATCGAAGGCCCTAGATGCTAAAGTCAAAACACGCTCCTTCGGCATTTCTGCCCCCT  
AAGTCTCCATCCCTGATGTGAATGTAACTTTGAAAGGACCAAGATAAAGGGTGTATGTCCTCCAGCGTGGGACTGG  
AAGGACAGATGTAGATCTGCAAGGTCCAGAAGCAAAAATTAAGTTCCCCAAAGTTTTCATGCCCAAGATCGGCA  
TCCAGGTTGTAATAATGAGGGTGGGGAGGCGAGGTCCATGCCAGCTACCTCTCTTGAAGGAGACTTGAGAG  
GACCAGATGTTAAGCTCGAAGGGGCCGATGTTTCTTAAAGGGGCCAGGAGTAGACTTGCTTTCAGTGAACCTCT  
CTATGCCAAAGTCTCTGGGCTGACCTTGATCTGAACTTGAAAGGACCAAGTTTGAAGGGAGACCTGGATGCAT  
CTGTTCCCGCATGAAGGTGCATGCTCCAGGGCTCAACCTCAGTGGTGTGCGTGGCAAAAATGCAAGGTGGGAGGAG  
ACGGTGTGAAAGTGCAGGGATCGATGCCACAACAAGCTTAACGTTGGGGCACAGATGTGACACTGAGGGGAC  
CAAGGCTGCAGGGAGATCTGGCTGTCTCTGGTGACATCAAATGCCCTAAAGTATCCGTAGGAGCTCCTGATCTAA  
GCTTGGAGGCATCCGAAGGCGCAATTAACTTCCCAAAATGAAGCTGCCCAATTGGCCATCTCTACTCCGGGGT  
CCGACTTGCACGTCAATGCCAAGGGGCCACAGGTTTCTGGCGAATGAAGGGGCCAGGTGTGGATGTGAACCTGA  
AAGGGCCTCGGATTTTCAGCACCGAATGTGGACTTTAACTTGAAGGACCAAAAGTGAAGGGGAGCCTTGGGGCCA  
CTGGTGAGATCAAAGGCCCCACGTGTCGAGGAGGTTCTCCAGGCAATGGTGTTCAGGGCTAGAAGGAACCTCC  
AGATGCCCTGGAATTAAGTCTCTGGATGTGATGTGAACCTGCCAGGCGTGAATGTGAACCTCCCAACTGGGCGA  
TTTCTGGGCTGAAATCAAAGGTGGTCTGAAAGGTTCAAGTAGGTTTCCATGGGGCTGCTCCTGATATCAAGT  
TGAAGGGGCTGCTTTAATATGGCATCTCCTGAGTCAGATTTTGGCATCAACTTGAAGGGGCCAAAAATCAAAG  
GAGGTGCGGATGCTTTTCAAGGGGTGTCAGTGCCCCAGACATCAGCCTTGGTGAAGGGCAATTGAGTGTAAAGGTT  
CCGGGGTGAGTGGAAAGGACCCCAAGTCTCCTCTGCTCAACTTGGACACATCTAAGTTTGGTGGGGCCCTTC  
ATTTCTCAGGACCAAAAGGTGAAGGAGGTGTGAAGGAGGTGAGATTGGACTCCAGGCTCCTGGGCTGAGTGTGT  
CTGGGCTCAAGGTCACTTGAAAGTGGATCTGGAAGGATGAACATTCCTCTAAATGAAGATCCCAAAATTTACCT  
TCTCTGGCGCTGAGCTGGTTGGCAGAGAAATGGGGGTGGATGTTCACTTCCCTAAAGCAGAGGCCAGCATCCAAG  
CTGGTGTGGAGACGGCGAGTGGGAAGAGTCTGAAGTCAAACCTGAAAAGTCCAAGATCAAATTGCCCAAGTTTA  
ATTTTCCAAACCTTAAAGGGAAGGTTGGTGTCACTGGCTCACCAGAAGCATCAATTTCTGGGTCAAAGGTGACC  
TGAAAGGTCAAAGGCCAGCTGGGCTCTCTGGAAGGAGAGGCAAGGCCGAGGCTCTTCAACGAAAGGCAAAAT  
TCTCCTTATTTAAAGTGAAGAGCCAGCGCACCGCTCAAATTCATTCAGTGATGAAGAGAGTTCTCTGGACCTT  
CCACCCGACGGGGACGCTGGAGTTTGAAGGTGGGGAAGTGTCTCTGGAAGGTGGGAAAGTTAAAGGGAACACG  
GGAAGCTGAATTCGGTACCTTTGGTGGATTGGGGTCAAAGAGCAAAAGGTCAATTAGGTGACTGGGAGCGATG  
ATGAGACAGGCAAGTTACAGGGGAGTGGGGTGTCCCTGGCCTCTAAGAAGTCCGACGTGCTCCTCTCTAGCA  
ATGACAGTGGGAATAAGGTTGGCATCCAGCTTCCCGAAGGTGGAGCTGTCAAGTTTCCACAAGGAAGTCAAGCAGG  
CCTTTGTATGTGTACATATATATATATAATACAAAAATCAGCCTTGGGTGGTGTGTTTCCATATATAAATCCA  
AAGGGAAACACACCGACTGCCTCAGCAATCATGCAAGACCTTGCTGGCCGGTGGCAAGCGCTGAAAAACCGCA  
CCGCTCTGAGGCTCTGCAAGCTATACAGATAGGTAAAGAGTTCCAAGTTCGTCCAGGCCATGTGCCAGGTCAACA  
GTATTTGGCTTAAGATTTTATATATATATATTTTTCATTGACTGCTGAGAGCTCCTGTTTACTAAGCAAGCT  
TTTGTTGTTTATTATCTCAITTTTACTGAACATGTTAGTTTGGGGTAATGGAACCCACTTTTTCATTGTAAT

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**FIGURE 776C**

GACTTTGGGGCTTTTGTTAGTAAGGTTGGGTGGGGTGATGGGTTGCAGACGGAGGTCAGGTCTTCCTCTTTCCT  
GAGACTGGATCTGTTCAAAACAGCAAACGCCCCACAGATGGCCCAGAGGTGGTGGTAGTCAGGGTGTGTGGGTGTTT  
TTAGGGTTCTTTAGTGTTGTTTCTTTCACCCAGGGGTGGTGGTCCCAGCCAGTTTGGTGCTGACGGTGAGAGGAA  
ATTAGAAATCTGTTTGCAAATGTCCAACCCACCCCTCAACATGAGGGGCTTCCATTTTCTGTGTTTTGTAAGGG  
AACTGTTTCCTTCATGCCGCCATGTTCTGATATTAGTCTGATTTCCTTTTAAACAAATGTTATCATGATTAAGA  
AAATTTCCAGCACTTTAATGGCCAATTAACTGAGAATGTAAGAAAATTGATGCTGTACAAGGCAAATAAGCTGT  
TTATTAACCTCCGAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCA

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FIGURE 777

MPKVKMPKFSMPGFKGEGPDGDVVKLPKADIDVSGPKVDIEGPDVNIIEGPEGKLGKPKFKMPEMNIKAPKISMPDI  
DLNLKGPKVKGDVDVSLPKVEGDLKGPEVDIKGPKVDIDAPDVDVHGPDWHLKMPKIKMPKISMPGFKGEGPDVD  
VNLPKADIDVSGPKVDVECPDVNIIEGPEGKWSPKFKMPEMHFKTPKISMPDIDLNLTPGPKIGDGDVDTGPKVEG  
DLKGPEVDLKGPKVDIDVDVNVQGPDWHLKMPKMKMPKFSMPGFKAEGPEVDVNLPKADVDVSGPKVDVEGPDV  
NIEGPEGKLGKPKFKMPEMNIKAPKIPMPDFDLHLKGPKVKGDVDISLPKVEGDLKGPEVDIRGPKVDIDVPDVG  
VQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADLDVSGPKVDIDVPDVNIIEGPEGKLGKPKFKMPEMNIK  
APKISMPDIDLNLKGPKVKGDMVDVSLPKVEGDMKVPDVIDIKGPKVDINAPDVDVQGPDWHLKMPKIKMPKISMPG  
FKGEGPEVDVNLPKADLDVSGPKVDVDVDVNIIEGPDADLKGPKFKMPEMNIKAPKISMPDFDLHLKGPKVKGDV  
DVSPLKMEGDLKGPEVDIKGPKVDINAPDVDVQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADLDVSGP  
KVDIDVPDVIDRRSRETERSQIDAEMSIOAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPK  
VDINTPDVDVHGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADIDVSGPKVDVDVDVNIIEGPDADLKGPK  
FKMPEMSIKAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPKVDINTPDVDVHGPDWHLKMPKVK  
KMPKFSMPGFKGEGPDVDVSLPKADIDVSGPKVDVIDVDVNIIEGPDADLKGPKFKMPEINIKAPKISIPDVLDDL  
KGPKVKGDVDVSVPKVEGTLKGPEVDLKGPRDLFEGPDADLKSGLKMPKISAPKVTAFDVLHLKAPKIGFS  
GPKLEGGEVDLKGPKVEAPSLDVHMDSPDINIEGPDVKIPKFKKPKFEGGAKSPKADIKSPSLDVTVP AEALNLE  
TPEISVGGKGKKSFKMPKIHMSGPKIKAKKTGIDLNVPGGEIDASLKAPDVDVNIAGPDAALKVDVKSPTKKT  
MFGKMYFPDVEFDIKSPKFKAAPLSPKLEGEAQADLELSLFAIHVEGLDIKAKAPKVKMPDVIDISVPKIEGD  
LKGPKVQANLGA PDINIEGLDAKVKTPSFGISAPQVSI PDVNVNLKGPKIKGDVPSVGLEGPVDVLQGPPEAKIKF  
PKFSMPKIGIPGVKMEGGAEVHAQLPSLEGDLRGPDKVLEGPVSLKGPGVDLP SVNLSMPKVS GPDLDLNLKG  
PSLKGDLDA SVPSMKVHAPGLNL SGVGKMQVGGDGVKVP GIDATTKLVN GADPDTLRGPSLQGD LAVSGDIKCP  
KVS VGAPDLSLEASEGSIKLPKMKLPQFGISTPGSDLHVNAKGQVSGELKGP GVDVNLKGPRISAPNVDFNLEG  
PKVKGSLGATGEIKGPTVCGGLPGIGVQGLEGNLQMPGKISKSSGCDVNLPGVNVKLP TGQISGPEIKGGKLGSEVG  
FHGAAPDISVKGPAFNMA SPESDFGINLKGPKIKGGADVSGGVSAPDISLGEGLHSVKSGSGGEWKGPQVSSALNL  
DTSKFAGGLHFSGPVKVEGGVKGQIGLQAPGLSVSGPQGHLES SGKVTFFPKMKIPKFTFSGRELVGREMGVDVH  
FPKAEASTIQA GAGDGEWESEVVKLKKSKIKMPKFNF SKPKGKGGVTSPEASISGSGDLKSSKASLGSLEGEAE  
AEASSPKGKSLF LKSKKPRHRSNSFSDEREFSGPSTPTGTLEFE GGEVSLGEGKVKKGKGLKFGTFFGLGSKSK  
GHYEVTGSDDETGLQSGSVSLASKKRLSSSSSSND SGNKVG IQLPEVELSVSTKKE

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**FIGURE 778**

GTGCGGTGGGAACGCGGAGCGGACGGATTTCGATTACACGGGGTTCGGGACCGCGCTGCGCTATGGAGCAGGTCA  
ATGAGCTGAAGGAGAAAGGCAACAAGGCCCTGAGCGTGGGTAACATCGATGATGCCCTTACAGTGCTACTCCGAAG  
CTATTAAAGCTGGATCCCCACAACACGCTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACC  
AGAAGGCTTATGAGGATGGCTGCAAGACTGTGACCTAAAGCCTGACTGGGGCAAGGGCTATTACAGAAAGCAG  
CAGCTCTAGAGTTCTTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAACACGAGGCAAAATA  
ACCCCTCAACTGAAAGAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCCTTCAACA  
TGCCTAATCTGTATCAGAAGTTGGAGAGTGATCCAGGACAAGGACACTACTCAGTGATCCTACCTACCAGGGAGC  
TGATAGAGCAGCTACGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCA  
GCGTCTCTCTTGGGGTTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCAACCCCTC  
CCAAAAGGAGACCAAGCCAGAGCCAATGGAAGAAGATCTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAG  
AGCTGGGGAACGATGCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGG  
ACCCCACTAACATGACTTACATTACCAATCAAGCAGCGGTATACCTTTGAAAAGGGCGACTACAATAAGTGCCGGG  
AGCTTTGTGAGAAGCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTC  
GAATTGGCAACTCCTACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGC  
ACCGAACCCAGATGTGCTCAAGAAATGCCAGCAGGCAGAGAAAATCCTGAAGGACCAAGAGCGGCTGGCCTACA  
TAAACCCCGACCTGGCTTTGGAGGAGAAGAACAAGGCAACGAGTGTTTTAGAAAAGGGGACTATCCCCAGGCCA  
TGAAGCATTATACAGAAGCCATCAAAAGGAACCCGAAAGATGCCAAATATACAGCAATCGAGCTGCCTGTCTACA  
CCAAACTCCTGGAGTTCAGCTGGCACTCAAGGACTGTGAGGAATGTATCCAGCTGGAGCCGACCTTTCATCAAGG  
GTTATACACGGAAGCCGCTGCGCTGGAAGCGATGAAGGACTACACCAAGCCATGGATGTGTACCAAGAAGGCGC  
TAGACCTGGACTCCAGCTGTAAAGAGGCGGCAGACGGCTACCAGCGCTGTATGATGGCGCAGTACAACGGGCAGC  
ACAGCCCCGAAGATGTGAAGCGACGAGCCATGGCCGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGC  
GCCCTATCTGGAACAGATGCAGAAGGACCCCAAGCACTCAGCGAACACTTAAAGAACTCTGTAATAGCACAGA  
AGATCCAGAAGCTGATGGATGTGGGTCTGATTGCAATTCGGTGGATGACTTGTTCATCCCCCTTCCCTTCGCCCT  
CATGTGGAAGAGGAGCTGGGACCGCGCGGAGCAGCAGCAGGAGCGGAAGGAGAGCAGGGGAGAGAAGGCCTCATC  
TCTCTATATTTATACATAACCCCGGGGAAGACACAGAGACTCGTACCTGCGCTGTTTGTGCGCGCGCTGCCTCTG  
GGCCCTCCAGCACACGATGGTCTCTTACCAGCTGCGCTCGAGTCCATGTCTCTTCCCTGCCCTAGTTGC  
TGCTCGGCTGCTCCCATAGTTGGTTTTTTTTTATTGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGT  
TCTTCCAGCCTCAGTGCCAGCTGTCTACGTTGTTATTGTGCGTCCCTTCTCCAATAAAACAAGCCAGTTGG  
GCGTGGTTATAAC



**FIGURE 779**

MEQVNELKEKGNKALSVGNIDDALQCYSEAIKLDPHNHVLYSNRSAAYAKKGDYQKAYEDGCKTVDLKPDWGKGY  
SRKAAALEFLNRFEEAKRTYEEGLKHEANNPQLKEGLQNMEARLAERKFMNPFNMPNLYQKLESDPRTRTLLSDP  
TYRELIEQLRNKPSDLGTLQDPRIMTTLSVLLGVLDLGSMDDEEEIATPPPPPPPKETKPEPMEEDLPENKKQA  
LKEKELGNDAYKKKDFDTALKHYDKAKELDPTNMTYITNQAAVYFEKGDYNKRELCEKAIEVGRENREDYRQIA  
KAYARIGNSYFKEEKYKDAIHFNKSLAEHRTPDVLKKCQQAEEKILKEQERLAYINPDLALEEKNKGNECFQKGD  
YPQAMKHYTEAIKRNPKDAKLYSNRAACYTKLLEFQLALKDCEECIQLEPTFIKGYTRKAAALEAMKDYTKAMDV  
YQKALDLSSCKEAADGYQRCMMAQYNRRHDSPEDEVKRRAMADPEVQQIIMSDPAMRLILEQMOKDPQALSEHLKNP  
VIAQKIQLMDVGLIAIR

GCTAGATGAGACTGAAGAGTCTTCTTTACTTTAAGTGATTGATTTCATTAGGACTCCTTGTGGGTTTTTTGTAA  
AAAGCCATTAAACCATTTCCCTGCGCCTGATCTCCATATCAGCCTTTATATATATTCATTGTCTCTCAACAGCCCC  
AATTTTTTTATTTAACAGATGGGGAACAGAGGCTCTGAGCGGTTAACAAAGCTTTCTTCTGTGGAAACCTAGTA  
AATGGCAAGCTGGAAATATGAACCTGAAGCCTATGTGCTTAACTAGTAAACCAACCACTGGGAGACCACATA  
TCTTACTGTGCAGTTTGTGTGTGTGAGGGGATCAGAACATCTAAGAAGTCCATTACGTTGAGGACAACATA  
GGGATTTATATATTAATACATGCTGGGTGAATACAGGCCGGTGTCTGTTAAAAATAGTATATTAGGACAGTTTG  
CCATACCATAGGGGAAAGCCACTTTATCTAATTACCCAAAGGTACTGTAAAGTGCTGATGGCTCTGGGCTCTGT  
CTTCTGTCAAGTGTCCAAAGTCACATAAGTAATGAATCCGCAGCTGGAGGAGCTGCTGCTGGAGACAGGCATGT  
TTTCAGACAGGAGCATGGCCTTTAGCTCATGACCATAAGAGGGCGCTACAGCAAGAGTACTAAATACCAATCAA  
AGTGAGCTCAGAGTACAAGAGGGTAACTTGCTTTCTCCAAAGTAAAAGAGACATAGTCCCTCAAACTTGC  
CCTGTGCCCTGTCCCTGAACCTCTCCATGGAGGAATTTTTCTGTTGTTTAGTGTAGCAGAATTTAGGAAGGGCT  
TGTAATAAGGAAGTTGAGGGTTGGGTGGGGTCACACTGTGTTGTGTGAGGATCATTTTCATGTTAATGAAATGT  
TTAGTTCTTTAAGGGGAATGTGGTAGAGCCTTTATCTCCCCCTGCCCTTTTTTTTAAACTGCACAGGTCTCTGGCA  
CAATGTTTATTGTGTCTATAAATAACCAAGAAATGGGTTCACAAAAGATGCAAAAGACTGTGCTCTGGAATTC  
CTACCACAGCGAGTCCCTGTGAGTTTGAAGAAGCTGTCTGCCAAGTGGCCCTTGATTACAAAAGGAAGAAACA  
CGTATTCAAGCTAAGACTAAATGATGGCAATGAGTACCTCTTCCAAGCCAAAGACGATGAGGAAATGAACACATG  
GATCAAGGAAAAATTTACTGCAAGTTGACGGGAAAGAGGAAAGAAATGATCGTCTTACAGCCGCTCGTCAGACT  
CAGCAACCTGGGATGAGAGGTTCTCTGCCCTGGAAGGCTGACTACATTTGGAGTTACTGGAAGTGGCGAGACAGC  
AAGAGGAAGAGGAGAGGAAGAGGCGGCCCTCTCTCCGAGCCGAGCAGGAAGTTTTCAGAGGAAGCCGAGTCCC  
AGCAGCAGTGGGATCTCTCAAAAGGAGAACAAGTTTCCCCAAACGGTTTGCCAGCTGAACAGGATCTCCACGGA  
TGGCAGAAACCGTGGACACAAGGAAATGGTCAACGGCGCTACAGAACAAAGCAGAGCTTAAAGATGCTCCAGC  
CCATCCCCCTCCCGACCTCTGATCGTAAAGCCAAGACTGCCCTCCCAGCCAGAGTGCCGCCACCTTTACCAAGCCA  
GAACCCAGGAGACACCTTCGGCCCCAGATGGAAGGCTTCTCAATCGGAAACACGAGTGGGAGGCCACAATAAGA  
AAGCCTCAAGCAGGTCTGGCAACAATGTTTATTGTGTACATAAATAACCAAGAAATGGGTTTCTACAAAGATGCAA  
AGACTGCTGCTTCTGGAATTCCTTACCACAGCGAGGTCCCTGTGAGTTTGAAGAAGCTGTCTGCGAAGTGGCCC  
TTGATTACAAAAGAAGAAACACGATTCCAAGCTAAGACTAAATGATGGCATGAGTACCTCTTCCAAGCCAAAGA  
CAAAAGAGAACCGGTTACGCTTTTTTGGCCAAAAGAAATGAACCTCTTCTTCCCTTACCTCTGCCCCTTCTCTTACC  
CTTTCAGTGAATTTCCCGCATGCAAGCTCAGAACCACACAGTACTCTCTGTGCCCAAAGTTCCCAAAGTGGTT  
GAANNNNNNNNNNNNNNNNNNNNNAGACATTTTCGGGGGGGTGGGGGAAACACACTTAAACCTTTATCTCCCA  
GTTACCAAAGTTTGAAGTGCAGAGGGAAGGCCAGATTTTTTTTTTAAATGAAATTATATAGATTAGATCTCAGTAT  
TTAACTGTTCTCAATTTTGTGAGGCTGTGTGGAAATAACCCGCTCTAGTGTCTGTGGTATGCAAGGCAGCG  
GTGCTTAATCAATTTCTGTGCTTACCCAGAGGCCAAATGTACCAATATCTGACACCATTCTCTCTCCATTTA  
CTTCTTGGTGGTTACCTTGACTCTTGACTCTTAGAAGTGCCCGAGATGGGGCTAACCTTTATTAACAGATCGCA  
TATTATGATCTTGTGCAGCCAGAGTGCAGCTCCACATTAACTCTACAGACCAAAACCATTTGTATCTGGCATC  
TTACTAACACAGCATGCGGCTTTTCTGATCACTGCTATGACCGTTAAGAGTGTGAGTATCAAGAAAGGAAT  
AGAAAACCTGATCTGTTTTAAATAATCTGTAATTTCAATTTTTTTTTTTTGTGTAATACATATTATTTGACGT  
TTGAGATAATTTAGTACAAAGTATAATAAACTAGATGTATAATAACCTTTAAATCAATTTGTAAGTGTACAA  
GTGTGGAACTGAAGCATTTACTTGACAAAGTAAATGTACTTAATGGTTACTTGCTGCTGCGTTGCCACACTG  
TGTTATTAATTTGCTTCATTTCCTTGCTATTGTATACATAGTGTGATTTCTCTGTCACTGTAACATTTGTAATGA  
CAAAATTTTCATCTTACTGCACAATCAAAATGACATTTGATAGGAATGAACCTGAGGCTGGGCTGAACAGGGAG  
GTGTGCTGCTCAGGCTGGTGTCTGAGTGTACGACCTGTACCTCTCAACTTTTGCCCTATCTGTTAAATATATGCT  
ATGTCATTAAATGCTTTTTAAATCTAGCAGCGGTGACTAGTTGTGTCTTCTCTGCTGCTGCTGATGCCAGTA  
GGAAACTGCAAGGGAGAAATGACAAACAAGAAACATTTTCAACCAAGCTGTGGGCTCACTTTTGCAATTTTTAT  
GCATGCTGTGGTGACAAGCTTTGAAAACACAGCAACAGTAATAAATGTGACTGTTTTGTAGT

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**FIGURE 781**

MAETVDTSEMVNGATEQRTSSKSSPIPSPTSDRKAKTALPAQSAATLPARTQETPSAQMEGFLNRKHEWEAHNK  
KASSRSWHNVYCVINNQEMGFYKDAKTAASGIPYHSEVPVSLKEAVCEVALDYKKKKHVFKLALNDGMSTSSKPK  
TKRTGSAFLAKK

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**FIGURE 782A**

CGCGTGTCACGCGGACGCCGGCTAAGCTGCTTCTGCGCGCGCGGCGCTGGGACCTTGGGGTGAGGCTGC  
GCGGGGCGGAGGCGCCCTCCGAGCGCCAGGTTTATTCACTCACCATTGAAGCTGCTGCTGCTGCACC GCGGCTTCC  
AGAGCTGCCTCTGCTGACCTGCTTGGCTTATGGAGAACCAACCCCTGAGGCTCAGCCTTATCCCTGGGTGCAC  
CAGCTATCAGCGCTGCCTCTCTTCCAGAGGATCTAATACATCGGTATGGCGAGGTCAGACGCTCACTCTGCAGC  
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGAGTGGGCGGGGTAAATGTCACCCAGCAGCTGCAAGGACACA  
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTCACTGCCCCACAATTTACGAGCAGAGCTGCGGGATTGGGA  
GCAGCGAGCTCAGGAGTTCTGCCCCACCATCTCCAGCAGCTGGATTCCCGGGGCTGCACTCCGAGAACGAGG  
AAAACAGGAGAAATGACGACAGCGGAGGAGGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCTCTGTG  
TGACCGTCACTCTCCCTCTGCTCCCTCTGGGGGCGCAGCGTGGTGCCCTTCATGAAGAAGACCTTTTACAAGAGGC  
TGCTGCTCACTTCACTGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTTCCAGCTCATCCCGGAGGCCAT  
TTGGTTTCAACCTCTGGAAGATTATTTATGTCTCCAAGTCTGCAGTGGTGTTTGGGGGCTTTTATCTTTTCTTT  
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATGGACAGACCCATTATGCTCTG  
AGTCGCTTCCCTCCAAGAAGGACGAGGAGGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCCATGATA  
TTCTCAGCACTGCAGCAGCTGGACGTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT  
CTGTGACGAGCTCGCAGGCTTCCACAGTGTCTGCTACTGGGTGAAGGTTGTCGCTACTCTGATATCGGCACCT  
TGGCCTGGATGATCACTCTGAGCGACGGGCTCCACAATTTTCATCGATGGCTTGGCCATCGGTGCTTCTTCACTG  
TGTCAGTTTTCGAAGGCATCAGCAGCTCGGTGGCCATCCTCTGTGAGGAGTTCCACATAGAGCTAGGAGACTTTG  
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTTCAACTCTCTTTCGCGCTGCTGCTGCTGAC  
TGGGTCTGGCTTTGGCATCTTGGCGGCGCAGCCACTTCTCTGCCAACTGGATTTTTTGGCGTAGCTGGAGGAATGT  
TCTTGATATTTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCGTGCAAGAGGATGAAAGGAAGGGCAGCA  
TCTTGATTCATTATATCCAGAACCTGGGCTCTGACTGGATTCACCATCATGGTGGCTCCTCACCATTGATT  
CAGGACAGATCCAGATTGGCTAGGCTCTGCCAAGAGCGCTGTGGGACTGGAAGTCTGGGCGCTGGGCTGCCGATC  
GCCAGCCCGAGGACTTACCATTCCACAATGCACCACGGAAGAGGCGCTTCTATGAAAACCTGCACAGACTGTATT  
CCTGCATTCAAGTCTACGCGCTTTGAAAAATGCTGTATCCTAGGAATAAGTGCCTGGTGAACGAGCTCTTAGCT  
AGTGCCCTCTGGCCTCTCCTCACTCCTTTTCTCTAGTGACTGTGGAACCTGAATGCAGCTTACAAGACAAGCC  
TGACTTTTTTCTGATTACCTTGGCCTCCTCTTGGAAACAGTGTGAAGCTTTTGAATCCTTTTACCAACAAT  
GCAAAAATAGAGCCAAATGGTTATAACTTGGCTAGAAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC  
TAGCTGGGACCTTGGACCTCCAGCTGGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCCATTTTTCAAAGT  
CTGTTTAAATTGCTTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCCAA  
GGTTTCACTCTGAATGGGAGAGGAAGTCGAACCACCTGCTGTGTGCTTGTGAGGATGCTCACTTGTTCCTACTGAG  
ATGCTGGATATTGATTTTGTAAACAGCACCTGGTGTTTCAACGGCTGTCCGAGTGAGCTAAGCTGGCGGTGTGGCTG  
CTGGGACCTCCTCTTTCAGGTTAACCTGACAGAAATGGAGGCTCAGGCTGTCTGCAGAAAACAGTTGGTTTGGC  
TGTGATTTTGACCTCCTCTTCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCTTAAGAGCACATTCTGA  
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAACTATCCTCCCCAGGTGTGAGACGCTGCGAGAGTG  
GCAAGCTGACTGTGAGAAATGCGGCTGCAATTTATGCTCTAGACAAGGGTGAATCAGAAATGGAATCACTGCGA  
GGCAAAATTTAGGATTTCGCCCTTCCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGGACAA  
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTTAAATGAC  
CCGCTTAGTGTCTTCTTCTTGCAGAAAAGTGCAGATCCTGCAATGGAATGGAATTTCTTCAACTCTCT  
CCAGAAAAATGGAATGGAGATACTTGTCTTTAAACTGTAGGCGAGCCTTAGCCACTGTGGAGCCCTGCTCCGA  
GCTCTGGCTTCAAGGGAGCTCTTCTCCAGGTTCACTAGGTGAATGATTATATATCATATGGAATGATGGA  
GATTCTTTAGCCACTTTGGGAGCGCTGCTCTCCAGAAGCCTTTCTTAGTGGTGCCACAGTTGGAGCCGAGGGG  
CCATGTTTGCAACTGATTCTATGTGATGGCTGACAGGAGTACTGGTTCACTACCAATGCTGAGCTTTCTCTT  
ACATAGAAAACCTGTCCACTCTCAGTAATCAAGACGACGACTTTTGTCTTCTTCTTTGGGAGACATCTGTC  
AAACCAGGAATATTCTTGAAGAAGACGTGAGCAGGAAAACTGCTGGTGATCTTTTTTAAAGTTTGTTTTTAT  
CTTGCTTGTGGCTTCAATACATTTGAGAAATACGCTGAAGAGGAAAAATTCAGTGTGAGGATCTAGATTAA  
TATCAGGACTGATTTCTGGTGGGATTATGTTCCAGTTTACCAGAACCAACTCTGAAATGTTGAAATCTAA  
CTTTTTATATTGTCAATTATATTGTTGTTTTTAAACGGTCTTGTGCTTTTCTGTTTTATTCTTCAAGCTGCT  
TTCAGGAGCTGACGAAAAATCACTAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACTCACTCGCATTTGATGT

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**FIGURE 782B**

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCTATCATTCCTTAAACATAATACCCTTTGTCTTGGAGTAGA  
ATACTAAGTTAGAGTTAGTGGATTCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT  
GAAATAGGGTGTTCCTTTTGTGCACACCTATATTACCTTAAGAAATTTCCCTCCATAGACAGCTGCCTCAA  
AGGGAAATCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA  
CATCGTCTGACTTGAGTCGCCACTGATTGIGGCAACAGCTTTGCCTCATGAGTCAAAAATTGGCAATTTCTTTTG  
ATTTTAGTTGTTGAATTTGCTGTTTCAAGCATTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG  
GACTTTTTCACCCCTGGCATTAGCAGCTTCGACCTCAITTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA  
GGAAAGTGATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTCTGCTCCTTCTCACTTCACCACCGGCAC  
ACAGCTTGCCCCGTGCTTTGCCCCCAAAGTATTTTGTCTAGTGTCAAATTTGGAGCTATTCTTCACTGGTCCT  
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA  
GAGATGGCAATATGCTGGGCATCTACTTTAAACAAAGTTGCTGATTTTTCAGAGAGAGGTTAGGATTTTATTG  
TCTTATTTCCTTTACAGTTCTGAGTCCATCAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT  
AGAAAAGAAAATTAACCTTATGTGGACTGTAAATGTTTTATTGTGAAGATTCTATAAATAAAGCTATATTCTGT

**FIGURE 783**

RVYADAPAKLLLPPPAAWDLAVRLRGAEAAASERQVYSVTMKLLLLHPAQSCLLLTLLGLWRITPEAHASSLGAP  
AISAASFQDLIHRYGEGDSLTLQQLKALLNHLDDVGVGRGNVTQHVGQHRNLSTCFSSGDLFTAHNFSEQSRIGS  
SELQEFCTILQQLDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTfYKRL  
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYVYVKS AVVFGGFYLFFFTKILKILLKQKNEHHHGHSHYASE  
SLPSKKDQEEGVMEKLQNGDLDMIPQHCSSELDGKAPMVDEKVI VGSLSVQDLQASQSACYWLKGVRYSDIGTL  
AWMITLSDGLHNFIDGLAIGASFIVSVFQGISTSVAILCEEFPHELGD FVILLNAGMSIQQALFFNFLSACCCYL  
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFPFMNEVCQEDERKGSILIPFIQNLGLLTGFTIMVVLTMYS  
GQIQIG

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FIGURE 784

GAATTTCGGCACGAGCGAGTTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGAGGG  
CGTTGGCGCGGAGCCGACGGGAACGTCGCGCGTCGCGAGCAGGGCAGGGAAAGCCGGGAGGCGGGCCCGGCCGAG  
CTTGTCCTTGTTCGCGCAGGTACTCCGAGCACTATGTCGTCGCCGCGTCGACCCCGAGCCGCGCGGACGCCGCG  
GTGGAAAGGCCACCCCGCCGACGCTCGGCTAGAGGGGAACCCGAAGAGTGTTAGGGGCACACCTGTGAGACAGA  
AGGATTCCACCTCCACGGGGGAGTTCGACGCCGATGCCAACCTCGCTGGAGTGGACCTGCAGAGCACTGCTGCC  
AGGACGTGCTGTTTTCCAGCCCTCCCAAAATGCATTCTTCAGCTATCCCTCTGACTTTGATGTTAGTTTACCAC  
TGACATACGGCACTCCAGCTCTCGGGTAGAGGGGAACCCGAAGAGTGTTAGGGGCACACCTGTGAGACAGA  
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG  
TGGCAAGTGAGCAGTCTTAGGCCAAAACTTGTGATCTGGGGAACAGATGTAATGTGGCAGCATGCAAGAAA  
ACTTTCAGAGATTCTTCAGCGTTTATTGACCCTCGGCTAAAGAAGAAGAAATGTGGCATAGATATTACTG  
AACCTCTATACATGCAACGACCTTGGGGAGATTAAATGTTATGGTGAGCAATTTTAAATGTGAACCTGTGAACACA  
TCAATCATTTGACAAAAATTTGTACAGACAACCTCATCTCTTACCACAGGAAGTTATTCCAATTTTGACATGG  
CTGTCATAGAAATCTTCTTTGACCGTTTACCCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCACG  
CATTGAAGACTAAGAATATGAGAAACCTGAATCAGAAAGACATTGACCAGCTCATCACCATCGCGGCATGGTGA  
TCAGGACATCCGAGCTGATCCCGAGATGCAGGAGGCCCTTCTCCAGTGCCAAGTGTGTGCCACACGACCCGGG  
TGGAGATGGACCGCGGCCGATTGACAGGCCAGTGTGTGCGGGCGCTGCCACACCACCACAGCATGGCACTCA  
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCTGCGAGGGC  
AGACACCAACACAGATTATCTGTTTGTCTACAATGATCTCGTTGACAAGGTCAGCCTGGGGACAGAGTGAATG  
TTACAGGCATCTATCGAGCTGTGCCTATTCCAGTCAATCCAAGAGTGAGTAAATGTGAAGTCTGTCTACAAAAACC  
ACATTGATGTCATTCAATTACGGAACCGGATGCAAAACGCTGTCATGGCCTTGATGAAGAAGCAGAACAGAAAC  
TTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACCTTCCAGGAACACAGACATTTTAGAGGCTGTGCTTACG  
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAAG  
AGGATTTTAGTCACACTGGAAGGGGCAAAATTTGGGGCTGAGATCAACATCTTGCTGTGTGGCGACCTTGGTACCA  
GCAAGCTCCAGCTTACGCTACGTTGTACAACCTCGTCCCAGGGGCCAGTACAGCTTGGGAAGGGCTCCAGTG  
CAGTTGGCCTCACTCGCTACGTAATGAAGACCCCTGAGACAAGGCAGCTGGTCTTCGACAGCAGGTGCTCTGTGCT  
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAAGTACAAGATCGGATTTGATGAAG  
TCATGGAACAGCAGACTCTGTCCATTGCAAAAGGCTGGGATCATCTGTGAGCTCAATGCGCGCACCTCTGTCTCGG  
CAGCAGCAAAATCCCATTTGAGTCTCAGTGGAAATCTTAAAAAACAACCATTTGAAACATCCAGCTGCCCTACACT  
TATTATCAAGGTTTGATTGATCTTCTCATGCTGGACCTCAGGACGAAGCCTATGACAGGCGCTGTGCTCACC  
ACCTGGTTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCCTGGACATGGCGGTGCTAAAGGACT  
ACATTGCTCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG  
TAGACTGAGGAAGATTGGCAGTATGCGCGGGGAATGGTTCTGCAATCCCGACAGCTAGAGTCATTAAATCCGCT  
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGCCAAACGCCCTCC  
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCGGAGCTGGCATCTGTGGACATATCTATTCTTACTACGGGGA  
TGAGTGGCAACCTCTCGTAAACGGAAGAAGTAATGAGTGAAGCATTTAGGCTTAAAGCTTAAAGGCAAAA  
CACCAGCTCTAAAATACCAGCAACTTTTTGAAGATATTCGGGGACAATCTGACATAGCAATTACTAAAGATATGT  
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCTTGACAGTGACTGGGAAGACCGTGGCTTGCTCTGA  
GCCTTGTGAGCAAGAGGCTCCCTGCATGTCATGCAATCTGCACGCCACATGGGTGTGGCTGGCTATGCAATCATCA  
GTTGGCGGCCATCAGTGTAATAGAGCTTAAAGTCATGGTTTGGCTGCAATAAAATCTTCTTAACTTTGGGTTCAA  
TATTTGTAGTGAAGTATCTGTTTTTCAATTTTTTTCACGTTATAAATAAAAAATACTATGTCGCCGGCGCGGTGCA  
TCACACCTGTAATCCGAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTGAGGAGTTCAGACCCAGCCTAG  
CCAAGATGGTGAACCCCGCTCTAGTAAAGATAACAAAAAATAGCTGGGCTGTATGGCATGCGCTGTAAATCC  
CAGCTACTCGGAGGTTGAGCGAGGATCGCTTAAACCCAGCGGCAGAGGTTCAGTGTAGCCAGATCGCGCC  
ACTGCATCTCCAGCTCAGCAATAGAGTGAGACTGTCTCAAAAAAATA

## FIGURE 785

IRHERVATSSASGRLPNRARRRGRALARSRRERPRCGAGQGSREAGPARACPCRAGTPTMSSPASTPSRRGSRR  
GRATPAQTPRSEDARSSFSQRRRGEDSTSTGELQPMPTSPGVDLQSTAAQDVLFSPPQMHSSAIPLDFDVSSPL  
TYGTPTSSRVEGTPRSGVRGTFVVRQRPDLGSAQKGLQVDLQSDGAAAEIVASEQSLGQKLVIWGTDVNVAAACKEN  
FQRFLQRFIDPLAKEEENVGIDITEPLYMQRLEINVIGEQFLNVNCEHIKSFDKNLYRQLISYPQEVIPTFDMA  
VNEIFFDRYPDSILEHQIQRFPFNALKTKNMRLNPNEDIDQLITISGMVIRTSQLIPEMQEAFFQCQVCAHTTRV  
EMDRGRIAEPSVCGRCHTHSMALIHNRSLFSDKQMIKLQESPEDMPAGQTPHTVILFAHNDLVDKVQPGDRVNV  
TGIYRAVPIRVNPRVSNVKSVMYKTHIDVIHYRKTDAKRLHGLDEEAQKLFSEKRVELLKELSRKPDIERLASA  
LAPSIYEHEDIKKGILLQLFGGTRKDFSHGTGRGKFRAEINILLCGDPGTSKSQLQVYVNLVPRGQYTSKGKSSA  
VGLTAYVMKDPETROLVLQGTALVLSDNIGICIDEFDKMNESTRSVLHEVMEQQTLSIAKAGIICQLNARTSVLA  
AANP IESQWNP KKTTIENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHLVALYQQSEEQAEELLDMAVLKDY  
IAYAHSTIMPRLSEEASQALIEAYVDMRKIGSSRGVMVSAYPRQLESIRLAEAHAKVRLSNKVEAIDVEEAKRLH  
REALKQSATDPRTGIVDISILTTGMSATSRRRKEELAEALKKLILSKGKTPALKYQQLFEDIRGQSDIAITKDMF  
EEALRALADDDFLVTGKTVRL



GAATTCGGCACGAGCGAGTTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGAGGG  
CGTTGGCGCGGAGCCGACGGGAACGTCGCCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGGCCGAG  
CTTGCTCTTGTGCGGCAGGTAAGTCTCCGAGCACTATGTCGTCGCCGCGCTGCAGCCAGCGCGCGCGGAGCGCGC  
GTGGAAGGGCCACCCCGCCAGACGCCCTCGGAGTGAGGATGCCAGGTATCTCCCTCTCAGAGACGTAGAGGGG  
AGGATTCCACCTCCACGGGGGAGTTCGACGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC  
AGGACGTGCTGTTTTCCAGCCCTCCCAAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTTACCAC  
TGACATACGGCACTCCCAAGCTCTCGGGTAGAGGGAACCCCAAGAAAGTGGTGTAGGGGCACACCTGTGAGACAGA  
GGCCTGACCTGGGCTCTGCACAGAAGGGCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG  
TGGCAAGTGAGCAGTCTCTAGGCCAAAAATCTTGATCTGGGGAACAGATGTAATATGGGCAGCATGCAAGAAAA  
ACTTTTCAGAGATTCTTCAGCGTTTTATTGACCCCTCGGCTAAGAGAAGAAAAATGTGGCATAGATATTACTG  
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAACGTGTGAACACA  
TCAAAATCATTGACAAAAATTTGTACAGACAACCTCATCTCTTACCACAGGAAGTTATTCCAACTTTTGACATGG  
CTGTCATGAATCTCTTTTGACCGTTACCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTTCAACG  
CATTGAAGACTAAGAATATGAGAAACCTGAAATCCAGAAGACATTGACCAGCTCATCACCATCGAGCGGCATGGTGA  
TCAGGACATCCAGCTGATTTCCGAGATGCAGGAGCCCTCTTCCAGTGCCAAAGTGTGTGCCACACGACCCTGGG  
TGGAGATGGACCGCGGCCGATTCGACAGCCCAAGTGTGTGCGGGCGCTGCCACACCACCACAGCATGGCACTCA  
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCTGCAAGGGC  
AGACACCAACACAGATTATCCTGTTTGGCTCACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG  
TTACAGGCACTCATCGAGCTGTGCCTATTCCAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAAACC  
ACATTGATGTCATTATATCGGAAAACGGATGCAAAACGCTGTCATGGCCCTTGATGAAGAAGCAGAACAGAAAC  
TTTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACTTTCCAGGAACACAGACATTTATGAGAGGCTTGCTTCAG  
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAAGGA  
AGGATTTTAGTCACACTGGAAGGGGGCAATTTCCGGGTGAGATCAACATCTTGCTGTGTGGCGACCCCTGGTACCA  
GCAAGTCCAGCTGCTGCACTACGTGTACAACCTCGTCCCGAGGGGCCAGTACACGCTCGGGAAGGGCTCCAGTG  
CAGTTGGCCTCACTGCGTACGTAATGAAGACCCCTGAGACAAGGCAGCTGGTCTTGACAGACAGGTGCTCTTGTC  
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAGATACAAGATCGGTATTGCATGAAG  
TCATGGAACAGCAGACTCTGTCCATTGCAAAAGGCTGGGATCATCTGTGAGCTCAATCGCGCGCACCTCTGTCTGG  
CAGCAGCAATCCCATTTAGTCTCAGTGGAAATCTAAAAAACAACCATTTGAAAACATCTCAGCTGCCATCACTATT  
TATTATCAAGGTTTGATTGATCTTCCATAGCTGGACCCTCAGGACGAAGCCTATGACAGCGCTGTGGCTCACC  
ACCTGGTCCGACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGCGCGTGCTAAAGGACT  
ACATTGCTTACGCGCACAGCACCATCATGCCGCGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG  
TAGACTGAGGAAGATTGCGCATGCGCGGGAATGGTTCTGCAATCCCTGCAGAGCTAGAGTCAATTAACTCCGCT  
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGAAGAGGCCAAACGCTCC  
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGGGACTGGCATCGTGGACATATCTATCTTACTACGGGGA  
TGAGTGCCACTCTCGTAACCGAAAGGAATTAAGCTGAAGCATTTGAAAAGCTTATTTTATCAAGGGCAAAA  
CACCAGCTCTAAATACCAGCACTTTTGAAGATATTCGGGACAATCTGCATAGCAATTACTAAAGATATGT  
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTCTTGACAGTGACTGGGAAGACCGTGGCCTTGCTCTGAA  
GCCTTGTGAGCAAGGAAGGCTCCCTGCTGATGATCAAAATCTGCAGCCACATGGGTGTGGTGTGCTGATGCAATCATCA  
GTTGGCCGCCATCAGTGTAAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAATCTGGGTTCAA  
TATTTGTAGTGAAGTATCTGTTTTTACGTTTATAAATAAAAAATACTATGCTGGCGCGCGCGTGGC  
TCACACCTGTAATCCGACACTTTGGGAGGCCAATGTGGGTGGATCATGAGTCAAGGATTTCAAGACAGCTTAG  
CCAAGATGGTGAACCCCGCTCTTAGTAAAGATAACAAAAAATAGCTGGGCTTGATGGCATGCGCCTGTAAATCC  
CAGCTACTCGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGCGCAGAGGTTCAGTGAGCCAAGATCGCGCC  
ACTGACTCTCGACCTCAGCAATAGAGTGAGACTGCTCTAAAAAATAA

CTAAGAGGAGTCCCTGTGCTGGGCAAGCTGGAGAGCTTCAGATTCTCTTTCAGGGGAAGAGTCCACATCCCACTCAT  
CATGTCCCGAAGACAGACCGCCCTCACGCGCTACTCCAGGGTGCACGATGCAGCCAGCAGCAGCGAGGAGG  
CTCGGTGGCTGGGAGTCCAGACACCTTTTAAAGACAGCTCTCAGACAGTTGAAGAGAAATCCAGAACAT  
GAAGCGCCTGTCCCAGCGCCACAGCTTGGCCGCGTCTCTGATGCACACCTCTCTACTACAGTGAGTGCCTGT  
CCACGAGTCTCGTGTCCACCCAGGAGCTCTCTGGAGGAAGTCTGGTGAGCCCACTGGGTGGAGACCTGCG  
GGCTGGGAGGAGGAGAGGACCGGGTGGCTCAGAGAGACAGAGGCGCAGCGGGCTTGTGGGGCGGAAGGCCACG  
GGACTTCTTGGGCTCTTCTCTGGGCTACTCTCTTAGACACACTCTAGCTGGGGTACTCGGATGTGGAACACGAG  
TTCACGCTCTGGCGCTCCGAAGCGCGCTCAGCGGCGGGCTCTTACTCTGGATGGTGCCACTTCCGCGGCGCG  
GCTCTTCAGACTCTCTACTGGTGGGTGCGACCACTGGTACCGCTGACCACAGTGCCTCCCTCCTTGACCG  
CTCTGTTTAAACAGCGCTCTCTGCTCCCTGAAGACGCTCTCTTGGTCTCTGCTGCGCTGCTCTTGTCTGAGTGT  
CTCAGCTATGGTGCTGTGATTATCTACCCTTATGGGCTGCAGACATTCACCTCTGTTTGTCTTGTGTGGGCG  
AGCGAAGGACAGCAGGAGGCCGGATGAGGGCTGGGAAGCCAGAGACTCATGCCACATTTCCAGGCTGAGCAGCG  
TGTTATGTCCCGGATACACTCTCTGGAGCGGGCTTGAAGAGCTCTGCTGTGTAATTTCTCCATAGTCCGAGAA  
GGAGCCATCTGGCTTGAAGCTCTTGGAGCTTGGGACGAAGGGCTCTGGCGAGGAGGTGGTGGTGGCTGAGCCA  
CGAGGACACCCCTGGCGCTGCTGGAGGGGCTAGTGAGCGCGCTGAAGCTGCCCTGAAGGAGAAATTTCCGACAGGA  
AATCTGCTCTGCATCAGGAAGAACTGTCTGCCCTGAGACGAGACATCAGCAAGACTCAGAAGACCTTTCAA  
GAAGATGCTCCGGGCTCCGAGAGTCTCGAGGCTGCGATCAGACAGCTGAAGTCAGAGTGGCAAGACTGACCA  
GGAGCCATCTCAGGAGAGCTGTGTAAGGAGCTGAGGCGGCTGGAGGACAGCTGGCCGGCCTGACAGAGAGCT  
GGCGGCTCTGGCAGTAGACAGAGCTCGGTGGCGGAAGTGGGCTGCTGCCCGAGCATCCAGGCTGCG  
GGACAGCTGGAATCTCAGTTCCGGGCTGGATGAGTCACTTCTGCCAGAGGTGAGGGGCGCGTGGGGCT  
CCTTCAGAGAGGAGGATCAAGACTCAGCTCAGGAGAGCTGGAGAGCAAGATCTCCACCATTTGGCAGAGATGCA  
GGCGAAGTCGGCGAGGGAAGCGCGGCGCTCTTGAGCTTGACGCTGAGCAAAAGAGTGTGATTGGAGTGACAGA  
GGAGAGGTGACCACTCTGTAAGCAGGCGGCTGACAGCGCTACAGTGAAGACCGCATCGGGCTGGCAGACTACGC  
CTTGAGCTCAGGAGGGGCGAGCTCATCAGCACCGGATGTTCTGAGACATCAGGACAGCAGCGCGCTCTCAG  
CTCTTCTGGCATCCCCCTGTGTACCTCCCACTACCCGAGTCACTCTCCAGCCAGATGTCGACACCGAGCA  
CTGCTGGGCTTCCAGGGGCGACAGGGCTTCGCGGTGTCGCGCTCTCTGCCCGCATCGCCCCACAGCGGTAC  
CTTAGAGACTGTGCCAAGGCTGTGACCAACAGCACTATCTCAGTGGCCCCAAGGACTTGCACATTTGG  
GTTTGACAAGAACTCGACAGAGGGGGGACACTCTTGCAAGTCACTACGATGAGGACGCGCAGGCTATGCA  
GACGTTTCACTTTACGGCCCTACGATGGCCAGTACCAAGTGTGGAGCTCGGATCTGACTTAAGTGGGCGC  
CCCCGAGTACACTGATCTACCGCTTCAGAGTGTGAGGAGAGCCCGCCCTACTGCTTGTGCTGCTC  
TCCGAGCACTCTGGGATGGGTGAAGACAGCCCGCGCTCCCCACACGTGCTGCGCCTCTGACTCTAG  
GAGCAAGAGAGAGGAGCTGTGGCCCACTGCAGATGAAAGGACGGGCGGGTCTCTGAGCAGCAGTGTGCTCG  
AGGCGGTTAGCAGGCTCCAGAGCTCCCTTCTCTCCCTCTGTCGCCGTGGCGTCTCTCCCATCTGGGA  
TGTTGATATATGATGATATCATGGGGACTGGGAAGTTGGGAGAGAGTAGGACTGACTGGTCTGGGTGGGGT  
AGGGGCTGGTGCTTGGGAGCTGATGAAGCAGCTTGCAGGCTGTGGGAGGGGCAAGCTACGGCTGGGCTAGGTG  
AGTCTGCCCTGCCCTGGGCAAGGAAGCGAGGCGCTTGGGAGGAGGGTCTAGCTACGACGAGCAATGGGACT  
TCCCGAGGCAAGAGCACTGTATGGAGAGCTGCCACGCTCTCTCAAGAGGTGATGTCCTCCACTTAGGAAGCC  
TGAACCAAGGCTCTGAGGCGCTTCGACAAAGGTGTGATTTGTCCCGAGGAGTGACAGTGGGCCATGGG  
CTCTTGTGGCCCTAAAGGGGACTGCTGTGTGATCTTAAGGGGCCAGGGGCAACCTCTAGGCTTCCCTCT  
TGCTGGGGACGGTAGTTGCTTTTCTCTCTCTGATGCTAGGTTGGGGCCACCTGCTCCTGTTCTGCTAGG  
CTCGGCACTGCCCTGAGCTGCTTTCCAACTTCTCCAGGGATGAGGACAGTACAGCTGTTTGTGGGGCAAT  
GCATCTGGGTTATAGCAAGAAGGTGGGAGCATGGAACTCTTGGGCTCTGTGGGAGAGTTCAGGATATCGGG  
GTGCGAGGTCTGTCTGACAGCGGCCCCACATCTAACAGGCGCTGATGTAGGGGTCTGTCGCTCAGGCTGCCCC  
TTGGGCTCTTGACGCTCTTGTGTAGAGTGTGCCCTCTTGTTTGTCTCTGTGGGAGGTGGTGGGGGCTGGG  
GGAAGAGGCTGGCAAGTATACCTGTGATAGGAGAGGGGAGAGGGAAGTTATAGACGACAGAGGCCCACTGT  
ATTATGTATATATTTTCAAGGTCTGTTTTCCTAACTGAAAGCATAGGGCTTGATTCTTAGACCCCGTGTGTGG  
GGCACTGGGTGATACAGTTTCTTGTGCTGGCGGTGGAGAGGCGCTGGGCAAGCTGGTTCGGGCTGTGTGCTG  
TGTGGCGCTGACGGGAAGGGGCAATGAAGCGGGCAGGACTTCACTGCAGACTAGACGCTCAATACCGCTCTGA

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**FIGURE 787B**

GCATGAGGCTGGATGCAGTGGTGGTGAGGCCGCCCCGCTCCATCCCGAGGCAGCCAGGCTTGTGTTTTGCGCTCTC  
CTGTCACAAATGCTGCACTATTGGTTCTTAAGTTTTTTATCTCCAGATCCTAATTTATGCCTATGCAAAAAATAA  
ATGACGCCCAAGAGCTG

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**FIGURE 788**

AGTTCTACTGAGACCTGTCACCCCGACTCAACGTGAGACGACCGCCCGGACTCACCATGCGTGAATGCATCTC  
AGTCCACGTGGGACAGGCAGGTGTCCAGATGGGCAATGCCTGCTGGGAGCTCTATTGCTTGGAAACATGGGATTCA  
GCCTGATGGGCAGATGCCCAGTGACAAAGACCATTGGTGGAGGGGACGACTCCTTACCACCTTCTTCTGTGAAAC  
TGGTGCTGGAAAACACGTACCCCGGGCAGTTTTTGTGGATCTGGAGCCTACGGTCAITGATGAGATCCGAAATGG  
CCCATACCGACAGCTCTTCCACCCAGAGCAGCTCATCACTGGGAAAGAGGATGCTGCCAACAACTATGCCCGTGG  
TCACTATACCATTGGCAAGGAGATCATTGACCCAGTGCTGGATCGGATCCGCAAGCTGTCTGACCAGTGACACAGG  
ACTTCAGGGCTTCCTGGTGTTCACAGCTTTGGTGGGGGCACTGGCTCTGGCTTCACCTCACTCCTGATGGAGCG  
GCTCTCTGTTGACTATGGCAAGAAATCCAAGCTGGAATTCTCCATCTACCCAGCCCCCAGGTGCTACAGCCGT  
GGTCGAGCCCTACAACCTATCCTGACCACCCACACCCTGGAGCACTCAGACTGTGCCTTATCGGTGGACAA  
CGAAGCAATCTATGACATCTGCCGCCGCAACCTAGACATCGAGCGCCCAACCTACACCAACCTCAATCGCCTCAT  
TAGCCAAATTGTCTCCTCCATCACAGCTTCTCTGCGCTTTGACGGGCCCTCAATGTGGACCTGACAGAGTTCCA  
GACCAACCTGGTGCCCTACCTCGCATCCACTTCCCCCTGGCCACCTATGCACCAGTCATCTCTGCAGAAAAGGC  
ATACCACGAGCAGCTGTCGGTGGCAGAGATCACCATGCCTGCTTTGAGCCTGCCAACCCAGATGGTAAAGTGTGA  
TCCCCGGCACGGCAAGTACATGGCCTGCTGCCTGCTGACCGTGGAGATGTGGTGCCCAAGGATGTCAACCGTGC  
CATTGCCGCCATCAAGACCAAGCGCAGCATTTCAGTTTGTGGACTGGTGCCCAAGGCTTCAAGTTGGTATCAA  
CTACCAGCCTCCCCTGTTGGTGCTTGGGGTGACCTGGCCAAGGTGCAGCGTGCCGTGTGCATGTGAGCAACAC  
GACCGCCATCGCCGAGGCCTGGGCCCCGCTGGACACACAAGTTCGACCTGATGTATGCCAAGAGGGCGTTTGTGCA  
CTGGTATGTGGGTGAGGGCATGAGGAGGGTGAGTTCTCCGAGGCCGTGAGGATATGGCTGCCCTGGAGAAGGA  
TTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGGATGAGGGAGAAGAATAAAGCAGCTGCCTGGAGCCTAT  
TCACTATGTTTATTGCAAAATCCTTCGAAATAAACAGTTTCCTTGACCGGTAAAAA

**FIGURE 789**

MRECISVHVQGAGVQMGNACWELYCLEHGIQPDGQMPSDKTIGGGDSFTTFFCETGAGKHVPRAVFVDLEPTVI  
DEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIKRLSDQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTFQINLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAIAAAIKTKRSIQFVDWCPTGFKVGINYPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGFSEAREDMAALEKDYEVEGIDSYEDEDEGEE

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FIGURE 790

GACCGAAGCAAGAGCTGGTTACAGTGGCAGCCACAGCAGCCTCAGGGACCTCAGCAACTATGSCCTCTGCCACG  
ACTCTGATAATAGCTGGGTGCTTGTCTGGCTCCGAGAGCCTGCCAGTGGAGACACTGGGCCCCGCATCCAGGATGG  
ACCCCAATCTGAGAGAGCCCTGCAGGCCCTCAGCAGCCCTCCAAGACAGATGGGAAAGAATTAGCTGGGACCA  
TGGATGGAGAAGGACCGCTCTTCCAGACTGAAGCCCTCAGTCTGGCAGCTTTAACAAGAGGAGACTGAGGTCA  
AGGGCACCCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCCAGGAGACACAGTAGTCCAGGGAGACCTGC  
AGGAGACCACCGTGTGTACAGGCCCTGGGACCAGACACAGGACCTGGAAGGCCAGAGCCCTCCACAGAGCCCTGC  
CTTCAACCCCCAAAGCAGCTTGGATCAGGGAGGAGGGCCCTGCTCCAGCAGTACGATGACACCCGAGCTGGAC  
TGGAGGGTCTCGGGAGACGGCGGGGCCGGGAGGCCCGCCACCTCAGCCCATGGTGCCCTGGCTGTGGAGAACC  
AGGCTGGGGGTGAGGGTGCAGCGGGGAGCTGGGCATCTCCCTCAACATGTGGCTCCTTGGGGCCCTGGTTCTGC  
TTGGCTTGGGGTCTCTCTTCTCAGGTGGCCTCAGAGTCTGAGACTGGGCCATGGAGGAAGTGGAGCGGC  
AGGTCTCTCCAGACCCCGAGGTCTCGAAGCTGTGGGGGACAGGCAGGATGGGCTAAGGGAAACAGCTGCAGGCC  
CAGTGCTCTCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGTCTGGACAAGCTGGCCAAAGGAAACCAGG  
ACATCCGGCTGTCTCAGGCCACGCTGCAGGCCCAAAAGGAAGAGCTTACAGACCTGATGCACCAGCCAAAGGGC  
TAGAGGAGGAGAATGCCAGCTCCGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCGGGCTCTGGAGTCAGAGC  
TGCAGTAGCTGCGGGCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCGGGGCCAGATGGGGTGTGCTCAGTG  
GGGTGAGGGCCCAAGCGGTGACAAGGCCATCAGGGAGCAAGGCCAGGAGCAGGAGCCAGCAACTCAGCTTCC  
TGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAAGGCAAGAGTTAGAGAGGCGAGCAGCGCTCTGG  
GGTCTGTACAGCAGGATCTGGAAGGAGCTTGCAGGATGCCAGCCGCGGGACCCAGCTCATGCTGGCTTGGCTG  
AGCTGGGCCACAGATTGGCCAGAAACTGCAGGGCCTGGAGAACTGGGGCCAGGACCTTGGGTCTCTGCCAATG  
CCTCAAAGCCTTGGCACCAGAAGTCCCACTTCCAGAAATCTAGGGAGTGGAGTGGAAAGGAAAAGTGGTGGGATG  
GGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAGAATCTGGCCGGGAAAGGAAGAAGAACTGGG  
GAGGTGAGGAGACAGGAGCCAGCAGGAAGGTGGAAGGAGGCGAGGCCAAGGTTGAGGAGTCTGGGGAGCAAGA  
AGGAGGGCAAGCGCAGGCGCCGAAGGAACCCCAAGGAAAAGTGGTAGCTTCCACTCCTCTGGAGAAAAGCAGA  
AGCAACCTCGGTTGGAGGGAAGGGACTAAGGACAGCCATGACCCCTGCCATCCTGGGCAGAGCTGTTGAGGCCCA  
AGTACCGGGCACCCAGGGCTGTCTAGGTGTGGACAGTGTGCCCGGCAGGAGGGCTGACTTTCTTTGGCACAG  
AGCTAGCCCCAGTGGCGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCAGCGCTGCCCTGGGTGGGC  
AGCTGACCAAGGAGCTACCCCTCTCACCTGCTTCTTGGTGAGGATGGCATCTTCGCTCATGACCCGCTCCGCT  
TCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGCAGGTTGATGATGATGAAG  
TAGATGACTTTGAGGACTTCATCTTCAGCCACTCTTTGAGACAAAGCACTGAAAGAGGTCAGGGGAAGAAGG  
ACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCAGGGAGGGGCACAGCCATAGCCACCACCACCACCACCGGG  
GCTGACACCTCTGCCACAGGGAATGGCCTTGGCTTGGCCAGGCCCAAGATCCCAGCGTTATCTAATCCTGGAG  
GGTGGACTGTGCTGGCTGTGTTGGTGTCTCAGATATCTTTACACAGTAGAGCAAAATCAGCAGCCCTGCAC  
TGATGTCACTTTATGTAGAAAAAGGCCCTAGCTGGACCTGCGTTGCCGTCTATGCAATGCATGCAAAATCTCCA  
GGCCCTGGGATGTGGGCTTGTGTTTGTCACTGTGAAGGGGGAGATGGGAGAGGAGCCTGTTTTGGGGTGGGGCT  
TGGGGAAGGCAATCTGATTTCTGAAGCTAAGAGCTTTTCCTTGTAGTGTATGTGCCCATAGTGGGCCCTTG  
ACCCACATGCTGACCGGTGCTTGGGATTGACTAGAGTTGTGGCTCGAGGCCACGACAGGAGCTTACCTTGG  
GGTTTTGTTAGGTTTGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTTTTTACCCCTGCTTCTC  
CCACGGCTTACCCCTCCTATGTGAACCTGTAGACTCAGATCCCAATAAGTGCTGTGCAGCTATGCTCAGTGTG  
GTTTCTAAGCACAGGGGACACCCCAACCCCTGCCTGAATGGATGGGTCCATCCCAGGCACCTGATCTTGGCCC  
CTTGTTCTGTATCCCCCTTTGGCCCTTGCCCTTGCCCTTCCAACAAACCTTAGGCCCTTGAGAAGCTGATACTTCTC  
CTTTTCTCAGCTGCTTGGCTTGGCCCCACCCCTGGGAGATGTAGCAAAATGAGTGTGGGTTTTGGAGCTGTAGCCT  
CAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGAACCTTGGGTTCTTATCTCTCAAAAAAG  
GCGATGGAAGGGCTGGGAAGTGATTAAATAAAGCAACGCAAGAAAAAAGAAAAAAAAA

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**FIGURE 791**

MASCPDSDNSWVLAGESELPVETLGPASRMDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILT  
EETE VKGTLEGDVCGVEPPGPGDITVVGDDLQETT VVTGLGPD TDLEGGSPQSLPSTPKAAWIREEGRCSSDD  
DTDVDMEGLRRRRGREAGPPQPMVPLAVENQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPM  
EEVERQVLPDPFEVLEAVGDRQDGLREQLQAPVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLM  
HQP KGLEEENAQLRGALQQGEAFQRALESE LQQLRARLQGLEADCVRGPDGVCLSGGRGPQGDKAIREQGPREQE  
PELSFLKQKEQLEAEQAQLRQELERQRRLLGSVQQDLERSLQDASRGDPAHAGLAELGHRLAQKLQGLNWGQDP  
GVSANASKAWHQKSHFONSREWSGKEKWWDGQRDRKAEHWKHKKEESGREKKNWGGQEDREPAGRWKEGRPRVE  
ESGSKKEGKRQGPKEPPRKSGSFHSSGEKQKQPRWREGTKDSDHPLPSWAELLRPKYRAPQGC SGVDECARQGL  
TFFGT ELAPVRQQELASLLR TYLARLPWAGQLTKELPLSPAFFGEDGIFRHRDLRF RDFVDALEDSLEEVAVQQT  
GDDDEVD DFEDFIFSHFFGDKALKKRS GKKDKHSQSPRAAGPREGSHSHHHHHHRG

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**FIGURE 792**

CTCTTCTCACATCAGCGGGTCCAGGCCAACCGACAGACTATGGGGGCTCCTTCACCAAGCGCTGCGTGGAGTGG  
CTGCTGGGGCTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGTCGCCGCGGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGAGCCCACTGCTACAGGAGCCCC  
CCAGCGCTGGTTTAAGTCCTTCTGTCTTTGCGAGCTTGTGTTTCAGCTGCCTTCTTTCCCAATTGCAAGGTATGCC  
TTCCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTTCACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAGACCTGAGACTTTG  
CATGAACGGTTAACCCCTTGCTGTCTGCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTTCATGTTG  
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAATGAAGGAAACAACCACTGGCCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACAGTCTTCAGCAGCATTTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCCTCACCTTCTTCCATTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTCCTTAGCCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGATAGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG  
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCCAGCCCAAACT  
TTCACCTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT  
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACTGACCACAGCATATATGCTTATGACTAAACCCCTC  
CACTCCTGATTCTCAAGAGTGTATCACCTGTGAGCAAAATGAATAGTGGATATTTTGGGCCATTTTAAATGTGA  
AATTTTGCTCTTTAATGTTAATTCAAAATATATCAATGTTTCTGTGTTCCACCTCTAACCCAAGGAAAAAAG  
AGAAAAACATACTATGCAAGGAAGTTTAAACTTAAGTTTTCTTAAAGGTGACGCCAACCAATGACTTTCAGTCAA  
ATGGATTAAACTGGAATAATGTTTTGTTTCTGTTGTAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGTGTT  
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA  
GTTCCGTCATTCCCATCTTGTTTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCATGTGTGCATAG  
AGGGTCTCTTCACGTTGATGCTTGGCATCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTTCAAGGTTAAATGA  
TGTTAGACAACAGGTCAGTCAGTCCCCCTCTATTTTACCCATTTTGTCTCACAAGCCATATTGGCCCCGATTAGT  
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGTGTGCCGGGAAT



## FIGURE 793

CTCTTCTCACATCAGCGGGTCCAGGCCAACCGACAGACTATGGGGGCTCCTTCACCGGCGCTGCGTGGAGTGG  
CTGCTGGGGCTCTACTTCCTCAGCCACATCCCCATCACCCCTGTTTCATGGACCTGCAGGCGGTCGTGCCGCGGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTAAGTCCTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTCTTTCCCATTTGCAACGTATGCC  
TTCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAAGATTCTCCAAAGCCAGTGGTTTCAAGGGACAAGACCTGAGACTTTG  
CATGAACGGTTAACCCTTGTGTCTGCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG  
CGGAGCCCCTACTACAAGTATGAAGAGAAAAAGAAAAAATGGAAGGAACAACCACTGGCCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACGCTCTCAGCAGCATTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCCTCACCTTCTTCCATTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGATATGGCT  
AATTTGTTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCTTAGG  
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCAGCCCAAC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAATAACTGTGTTGCCTGAGTTCACCGCAAGATTACTAAAGCAGGACCAGACCAGAACT  
GCTAAAGAACATGGCCTGTTGACATGTTTCATGAGTCACTGACCCACAGCATATATGCTTATGACTAAACCCCTC  
CACTCTGATTCTCAAGAGTGTATCACCTGTGAGCAAAATGAATAGTGGATATTTTGGGCCATTTTAAATGTGA  
AATTTTGCTCTTTAATGTTAATTCAAAATATATCAATGTTTCTTGTTCACCTCTAACCCAAAGGAAAAAG  
AGAAAACTACTATGCAAAAGGAAGTTTAAACTTAAGTTTTCTTAAAGGGTCAAGCCCAACATGACTTTCAGTCAA  
ATGGATTAAACTGGAAAATGTTTTGTTTCTGTTGTAACAGATCATCCTAGGCGAAAGTTTTTTTGTGTTT  
GCTTTTAAATTAGTTTATTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAAATACA  
GTTCCGTCATTCCCATCTTGTGTTTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTATCCACTGTGTGCATAG  
AGGGTCTCTTCACGTTGATGCTTGGCATCCATCAGCTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA  
TGTTAGACAACAGGTCACGTCAGTCCCCTCTATTTTACCCATTTTGTCTCAAGGCATATTTGGCCCCGATTAGT  
GGTACTGTCTGACTCAGGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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**FIGURE 794**

LF SHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWKYAKEFKDPLLOEP  
PAWFKSFLFCELVFQLPFFPIATYAFKGSCKWIRTPAIIYSVHTMTTLILILSTFLFEDFSKASGFKGQRPETL  
HERLTLVS VYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

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**FIGURE 795**

ATGTGGCTTCATCGAGTATTCCTTTGTGAATTCCTGGATGAAATTTTCAAGGCAAAACAGGAAAAGCACTGAAATT  
GCTGAATGGTGGCGAACGGAGGCCACGAGGGAAGGGAGCGCGCGCGGAGCTGCCGGGACACCAGGATACCAACGCG  
GCCAGCACCCGAAACGCTAGGCTCGCGCTCAACAACGCAATCTACACTGAGTAGCCGCGCGCCGAACGGCGTGACT  
AAGCCCCGCCACACGGCGCTCTTGGCGGCCAATGGAAA TGGCTTACGAGACGCGCTTCTCCACGCGCTATACTTA  
TACGGACCAATGGGTGCGCCCTGTGGGGAGTGCCGCCCCCTGTCCACGAGCCTCTCTTCTCGCCAGCCAATGGA  
AGCGGCTCGCTAGCCCTCGCGGGGGCAAGCGCGCACCGAGGCGCGTGGGTCTGGGAAGCGCGCGGATTTGGC  
CTCTTCTCAATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTACACAGGCGCTGCGTGGAGTGG  
CTGCTGGGCTCTACTTCTCAGCCACATCCCCATCACCTGTTTATGGAACCTGCAGGCGGTGCTGCCGCGGAG  
CTCTACCCAGTCCAGTTTAGAAAACTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTAAGTCCCTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTCTTTCATTGCAACGTATGCC  
TTCCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTACACCAATGACAACTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAGACCTGAGACTTTG  
CATGAACCGTTAACCCTTGTGCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG  
CGGAGCCCTACTACAAGTATGAAGAGAAAAAGAAAAAAATGAAGGAAACAACCACTGGCCACGGGTAGAGAT  
GCCTACAGGGTGGTGTCTGTTGGATACATACAGGAACACTGCTCAGAACCACGCTTCTACGAGCATTTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCCTCACCTTCTTCCATTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCTGGGCTCAAGCATCTTCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGTTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCTTAGG  
CTCAAGTGATCTGCCCACTCAGTCTCCCTAAGTGTGGGATTACAGACGTGAACCACTGGGCCAGGCCAAACC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAAAATAACTGTGTTGCCTGAGTTCACCCGCAAGATTACTAAAAGCAGGACAGACCAGAACT  
GCTAAAGAACATGGCCTGTTTGACATGTTATGATGACCTGACCCACAGCATATATGCTTATGACTAAACCCCTC  
CACTCCTGATTCCTAAGAGTGTATCACTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA  
AATTTTGCTCTTTAATGTTAATTCAAAACATATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG  
AGAAAACATACTATGCAAAAGGAAGTTTAACTTAAGTTTTCTTAAAGGGTCAGCCCAACAATGACTTTCAGTCAA  
ATGGATTAAAC TGGAAAAATGTTTTGTTTTCTGTTGTAACAGATCATCTTAGCGGAAAGTTTTTTTTGTTTGT  
GCTTTTAAATTAGTTTATTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGAICTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTAATACA  
GTTCCGTCATTCCCATCTTGTTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG  
AGGGTCTCTTCAGCTTGATGCTTGGCATTCATCAGCTTCTCTAAGTCTTTTGCTCAAGTTCAAGGTTAAATGA  
TGTTAGACACAGGTCCTCAGTCAGTCCCTCTATTTTCAACCATTTTGTCTACAAGCCATATTGGCCCGATTAGT  
GGTACTGTCTGACTCAGTGTGTGATCCAATAAAGTAGTGTCCGGGAATT

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**FIGURE 796**

MWLHRVFLCEFLDEIFKANRKSTEIAEWWRIEPRGKGAPPAAGTPGYHAASTETLGSRSQPQSTLSSRAPNGVT  
KPRPHGAPGGQWKWLTRRLHALYLYGPMGAPCGECRPLSTSLFSPANGSGLPSPRGGKAATEARGSGKARGFG  
LFSHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP  
PAWFKSFLFCELVFQLPFFPIATYAFLKGSCKWIRTPAIYSVHTMTTLILILSTFLFEDFSKASGFGQRPETL  
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

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FIGURE 797

GGCTTACAGGAGGGCAGCTCTGCAGTTGGGAGGGGCACCGTCCGAGGAGACCAGGCCTCTACACACCCCCACT  
CTACTTATCATCCCTGCTCACACACCCCTTGTCCAAGGCTTTATGCATCGGATTATTTTTCCAAATCAAGAGGAC  
AGTGATAGATGCATTTTCCCCAGGCTGTCTCAGAAAGGTCGCTAAATGTATACTGTTGTCAAGAATTGCTGAGATC  
TCCCCCACTTTTGGTTTTTGCAGCAGTAAAAACTCTTCCACTGTGACTTATTTTCTCTCAGGCAGCCAGCC  
ACCTGGTCCCTTGTGCTGACTCTAGCAGAGTGGCCAGGATCCAATACGAGTCCAGGGGTGACCCGAGGATGGTGG  
GGGACAGGGGCTTCTCCACCTACCCAGCCACCAAGGCCCTGACGCACCTGCTCCTGCACCTTCAGCACATCCCT  
TGGCACAGCTGGAAGGGTGCATGGCCCGCTCACCTTTGTTCAGATGGGTGGAACGCTGATGATACCCAGCTCCTC  
CCTGCCGTGCCCTGCCACGGAGCAGGCATTGTGAACCTGGCTGGTGTGTCAGTCCCACGTGGCATGGCTCCAG  
CCCCACCCACAGTGGAGACTGGAGACAGGGCAATGAGTCTGGTCGGGGGCACGTGGACATGCCCATAGGGGGCCC  
CACCCAGACTTAACAGGCAAGGTCTTGGGCATTGCGCGACGCAGGACTCAATGCTAAAGCAAGCCTGCCTGGCTC  
TGTGCCAGGGCCCTCTTCTGATTACACATCCCATTTTTACACAGACCCCTTCTTCTTAATAAAGGCTGACAGT  
TCTGTTGGCAGCCAAGAACCACACCATGAAGACAGGGAGTGAGGGGCCCTTTGTGCCCACTCCAGCACAGCTGC  
GTTCTGGGGTGTGTGAGAGGCATGTTCTGTCTGTGCGCTGGTGGTCTCGTGAGACAGTTCGGAGGACGGGAAA  
TTGCAGGGTGGTGGGGCGTGAGGCTTATATGTGGAACATGATGCAGAGTTCGCTGCAGACGGATCTGGATATAC  
ACTATGTATAATTGTTACGTGTAATTTAAATATATCTGTTGCCATCGTCATGAGAAGATTATATGAAGGCTC  
TGAAGGGAGAGGGAGATGTACATTTGCCAGGCTCCTGGGGACCTTATCCGAGTCAATGAATTGATGACTGTTGA  
TCCAGTGGTGCAAGAAGCTACACTCCATGTGTCATCACGCTTATGACTCCTCAATGATTTTTTAAGGCAAAAAATG  
TCAGCCGACTCCATCTTACCCCTCGATTCTCTGAGTCCAGCCTTTCTGTGCCAGTGCTTCACTGAGCCACAAG  
CTCTCGCCATCGGGACCCGGCTGGGCTGGAGTCTCGGGGCACAGTGGCATGGAGCCCTCCTGGGCTATTCTAC  
AAATGTGCTGAGTGCCAGCTGAAACCCACAGGAGATGGAGTACCTTGGCCAAAGCTTAAGAGAGAAGATTTTCTC  
AGGGTATTTATTAGTGTGTCCAGCAGGGTCAGGAAGCAGGATGGAAAGATGCATTAGACTGTTAATTTATTAAC  
AAGGCAAAATGATTTTGTGTTCTTGTGATGACAGACTATTAAGTTTGGGACTTATTTCCCATTTGAGAAGTTATAA  
TATATATTTAAGATGATAAGTTTCTGCTTAAGTTGTGCCCTTCAGCTTCAATGAGTTTAAGGAGCACTAAGGGT  
AATGATACCAATGAGGGTTGGTTTTATTATCAAACTGAATAGCTGTGGTTTCCAGTAAATATTTTCTTCTACT  
GAACATGGAGCCATTATTAAGAGTTGTGTGTTTTTATTATGTACATTGTATATTTTTTGTCTGTTTGTATGT  
CTATTTTTCTAATAGTTTTCTTTTAGTTTCTTAAAGTTGTGATACTAGATTTAGATTCTGATGCTAACTGCAAA  
CAGGTTGGTCTCTGCTGGGTCTCCTGCTTTTATTTTACTTTAAGGACAAGTGTAGTTGCTGCCACCACTTT  
CAAAAAATGTGAAACTGCCCTGCCCTCCCTTTTGTGACAACTGTGTACATTGACCCTTCCATACCATACTT  
TATGTTGTAATAACAACTCTTTTGTGGTACATTATCTCATGCTTCTGCAAAATTCGAATAAATCTATGGCTTCC  
AAAAA

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**FIGURE 798**

MKLMTVDPVVQEATLHVSSRL

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FIGURE 799

GCGTCACCACAGAGGCAAGACAAGGGTCCATATCGCGGCATCCGGCTCCCGCCGTCCTTCAGGAGAGAAAGAAAA  
AATAAAATATACTTGGGGAAGTTGTACCTGCCAGAATTAGTAAGAGCTTTCTTTAAGAAGACATTTGTCAAACTC  
AACAAATTGAAGTTAACACCTTAAGAGTTGTAGTTACTGACCAGAAATATGACAGACTTCTTAGACTTGGAGG  
AGGTATGCCTGGACTGGGCCAGGGGCCACCTACAGATGCTCCTGCAGTGGACACAGCAGAACAAGTCTATATCTC  
TTCCTTGGCACTGTTAAAAATGTTAAACATGGCCGTGCTGGAGTTCCAATGGAAGTTATGGGTTTGATGCTTGG  
AGAATTTGTTGATGATTATACCGTCAGAGTGATTGATGTGTTTGCTATGCCACAGTCAGGAACAGGGTGTCAGTGT  
GGAGGCAGTTGATCCAGTGTTCCAAGCTAAAAATGTTGGATATGTTGAAGCAGACAGGAAGGCCGGAGATGGTTGT  
TGGTTGGTATCAGAGTCACCCCTGGCTTTGGTTGTTGGCTTTCTGGTGTGGATATCAACACTCAGCAGAGCTTTGA  
AGCCTTGTGGAGAGAGCTGTGGCAGTGGTTGTGGATCCCATTCAGAGTGTAAGAAAGAAAGGTTGTTATTGATGC  
CTTCAGATTGATCAATGCTAATATGATGGTCTTAGGACATGAACCAAGACAAACAACCTTCGAATCTGGGTCACTT  
AAACAAGCCATCTATCCAGGCATTAATTCATGGACTAAACAGACATTATTACTCCATTACTATTAACTATCGGAA  
AAATGAAGTGAACAGAAGATGTTGCTAAATTTGCATAAGAAGAGTTGGATGGAAGGTTTGACACTTCAGGACTA  
CAGTGAACATTGTAACACAAATGAATCAGTGGTAAAAGAGATGTTGGAATTAGCCAAGAATTACAATAAGGCTGT  
AGAAGAAGAAGATAAGATGACACCTGAACAGCTGGCAATAAAGAATGTTGGCAAGCAGGACCCCAACGCTCATT  
GGAGGAACATGTGGATGTACTTATGACCTCAAAATATTGTCCAGTGTTTAGCAGCTATGTTGGATAGTGTGCTATT  
TAAATAA

**FIGURE 800**

MDRLLRLGGGMPGLGQPPTDAPAVDTAEQVYISSLALLKMLKHGRAGVPMEVMGLMLGEFVDDYTVRVIDVFAM  
PQSGTGVSVEAVDPVFQAKMLDMLKQIGRPEMVVGWYHSHPGFCWLSGVDINTQSQSEALSERAVAVVVDPIQS  
VKGKVVIDAFRLINANMMVLGHEPRQTTSNLGHLNKPSIQALIHGLNRHYYSITINYRKNELEQKMLLN LHKKSW  
MEGLTLQDYSECHKHNESVVKEMLELAKNYNKAVEEEDKMTPEQLAIKNVGKQDPKRHLEEHDVLMTSNIVQCL  
AAMLDTVVFK



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FIGURE 801A

GGGGACATTTTGGATTAACTTATGTAGGTTGCCAGCTAATGAATTGTAATTGATTTCATCTTAGCTGATAAAAT  
CTAATTGGTAATTTATAGAACAAATATTGTATAAGCTCCTATTAAATTGTACCCCCACCAAGCGGACAGCTAAACAT  
GAATTGCACCTCTCACTGCAGCTTTAGAGATCGGTTTAGGCTGAGACATTGCGCGCTGCCTTAGGTTGCTGACTCTTT  
TATTTTCAGAGCTCTGGAGACACCTAGTTTGAAAAATGTTATCTGTTTTTTTGTGAGAACAATTAGTAACAAGAA  
ATACCTCTTGAGTGAATGCAATGTATTTCTTTGTAATCAGTGCATTTGAAAAATTCAGGCCAGCATATTCTCTAGT  
AGATGGGAAGCAAAATTAGTTGCTCTTGTAGAAAAATGAAGAGCCTTCTTCAGCAAAAAATCCCTGCTGATGCA  
ATAGCCCTGATTAAACCTCTCCCTTCTGCATGTTTCCCATATTACAGACTTGAGACTGCTCATTTCCCATATGT  
AATAGACATCCAAAGAATTTCAATTGCTTTGTTGAACTTTTACTAATGATCTTGTTTTTATTTTCTCTCTGTTTT  
TTGTTTTTACCATTGATATTGTAATTAGAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCC  
TCGCTGAAGGGAGCTCGAGGCTGGATCTAGGGCAGACACAACTCCTCCTCCTCTCCAGCAAGGAACGCAC  
CGAAAAGTCACATGATGAGAAATATGGTAAACGGGTTTGAACGCCACAGCAAAACAATTTGCCTCCATGCCTGA  
ATCTTCTGTCTCTGTGGCTTCAGAAACAGCTTAAAATAATTTTATTACAAAGCAAGTTATGTAAGAGAATGTTTTA  
TACTATAGCCCAAAATCTGTCAAAGATAAGTAAAAGTTAATIGATATAAAAATTATTAGAGATAATTTTACTTAG  
TAAAAGCTTCTAACTCTCTCTGTTGTTTCATTTTTTTTCTTTTTTCTTTGTTTGGATTGCAGCACTTCTGCTC  
TCTGATGATGCGCTGTGACCTCGAGTAGCGCAAGGCTGCGCAGCGTTAATGCGCATTTGCGTGCGAATGAACC  
CCTGTGAACGGTTGACTAGATGAGTAATCTGATTGACTGGCTCCTCAGTCCATTTCTGTAGCCTTTTGGGATAA  
AATTGGGTTTTAAACATACCTCGAGTCCAACATAATCTCATTAAACAAATATTTCCATGCGGCTGTCTAGTAGATT  
AATGGAICTGGTTGGCGGTTTGTCTGCGCTAGGGGTGTTCTATGTAGCGCAGCAAGTTCCGACGGCATTGGCGAGT  
CTGTGCTGTTAGGTTGGCGCAGGATGTTTGGCGCTGCATTTACAGGACCTCAACCTAGGTGCAATCTGTCTCATG  
TGAGGTTTCAAGTTCAGTCTCAGTCTCCTTGGGAGACGGGGCATGTGAGAATGTAACCTTAAAGCCTGGCTTTATGATAT  
CCTACTTGGCAGAAAGACATTTTTCTCCTCAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAG  
CATTTCCCAAAATGTGTTTCATAGATTCTAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTC  
AGGAACCCCTGTTACACTATTAAGGCTTAGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTTATTTGATCAT  
GAACCTCCTTTTTTTCAGCCATACCTCTTAAACCTCATAGAACACACTCCGGAACAGTGGGGGATAGGAACAC  
TCGGCCTCAAGTTGCGCCCTCTAGGTAGCACTTGAAAACATGACAAGGGCCCGTAGTTGTTTGGATAAGAGAAC  
CCAGCATAGAGCCTTATAGCAACTGACTTCCCAGTTAAGTCCCAGTGAAGGGTTGGCTTTGGTTGGGCAAGAACT  
GAACATGGTGGTTTGCACTTTGGGTTCTGGTGGCGCAGGCGAGGAGCAGCCAGCTGTGGCAGGCGCATTAGTTTGT  
GCGCAAGCGAGCCCTATGCTGAGGGTCACTTTGCTGGTGGTGAAGAGAAATATGATATCACCTTCTTCCCCC  
CTCCCCCAATCTTTTTTTTTTCCCTTTTACAAATTTTCCCTTTTCCCTTTTACCTCCTTTCCCTCCCATCTTCTTT  
CATTAAACCCCTCTCAAGGCATGTTATTTGAAAGCAATTTGAGACGCAACCGCAATTTGCACTGCTTGGAGTAATC  
TTGGCTGTGTTTTCAATGCACAAAGGGGAAATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTCAACCTTGACC  
CAACTTTCTGATGACTTATATCAATTTAGGAAATGCTTGAAAGAGGCACGCATTTTGACAGACTGTGGCAG  
CTTATCTTGTGGCCCTAGTTTGTAGTCCAAATCAGCAGTGGTGCACGGCAACCTGGCTTGTGTACTATATGAGC  
AAGGCTGTAGATCTGGCAATAGACACCTACAGCGGGCTATCGAATACAACACCATTTCCCTGATGCTTACT  
GCAACCTGAGAAATGCTCTCAAAGGAGGAGCGATGTTGCTGAAGCAGAAATGTTATAATACAGCTCTCCGTC  
TGTGTCCCAACCATGCAGACTCTCTGAATAACCTAGCCAATATCAACGAGAAACAGGGAACATTGAAGAGGCAG  
TTCGCTTGTATCGTAAGACCTTAGAAGCTTCCCAGAGTTTGTCTGCTGCCATTCAAATTTAGCAAGTGTACTG  
AGCAGAGGGAAGCACTCGAGGAAGCTCTGATGCATTATAAGGAGGCTATTGCAATCAGCTCCTACCTTTGCTGATG  
CCTACTCTAATATGGGAAACACTCTAAAGGAGATGCAGGATGTTTCAGGAGGCTTGCAGTGTATTACGCGTGCCA  
TCCAAATTAATCCTGCATTTGCAAGATGCACATAGCAATCTGGCTTCCATTCTAAGGATTACAGGGAATATCCAG  
AAGCATAGCTCTTACCAGCAGGCTCTGAAACTTAAGCCTGATTTTCTGATGCTTATTGTAACCTTGGCTCATT  
GCCTGCAGATTGTCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGT  
TAGAGAAGAATAGGTTGCCCTCTGTGCATCCTCATCATAGATATGCTATATCTTCTTCTCATGGCTTCAGGAAGG  
CTATTGCTGAGAGGACGGCAACCTGTGCTTAGATAAGATTATGTTCTTCATAAACCACCATATGAACATCCAA  
AAGACTTGAAGCTCAGTATGAGTGGCTGCGTGTAGGATATGTAGTTCCGCAATTGGGAATCATCTCATCTTC  
ACCTTATGCAGTCTATTCCAGGATGCACAATCTGATAAAATTTGAGGTGTTCTGTTATGCCCTGAGCCAGACG  
ATGGCACAACCTTCGAGTGAAGGTGATGGCAGAAGCCAATCATTTTATTGATCTTTCTCAGATTCCATGCAATG  
GAAAAGCAGCTGATCGCATCCATCAGGTGGAATTCATATCCTTGTAAATATGAATGGCTATACATAAGGGCGCTC

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**FIGURE 801B**

GAAATGAGCTTTTTGCTCTCAGGCCAGCTCCTATTACGGCAATGTGGCTGGGATACCCCTGGGACGAGTGGTGGCG  
TTTTTCATGGATTATATTTATCACTGATCAGGAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGG  
CTTATATGCCCCACACTTTTTTATGGTGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAAGCAGTCATCG  
ATTTTAAGTCCAATGGGCACATTTATGACAATCGATAGTTCTGAATGGCATCGACCTCAAAGCATTTCCTTGATA  
GTCTACCAGATGTGAAAAATTGTCAAGATGAAGTGTCTGTGAGGAGAGACAATGCAGATAGCAGTAACACAGCTC  
TTAATATGCCTGTTATTCCTATGAATACTATTGCAGAAGCAGTTATTGAAATGATTAAACCGAGGACAGATTCAAA  
TAACAATTAATGGATTTCAGTATTAGCAATGGACTGGCACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGG  
AGGTTCCCCGTACCATTATTGTAACCAACCCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACGTGAAC  
TTAATCAGTTGATAAAAATTGACCCCTCTACTTTGCAGATGTGGGCAAAACATTCTGAAGCGTGTTCCCAATAGTG  
TACTCTGGCTGTTGCGTTTTCCAGCAGTAGGAGAACCTAATATTCAACAGTATGCACAAAACATGGGCCTGCCCC  
AGAACCGTATCATTTTTTTCACCTGTGTCTCCTAAAGAGGAACACGTCAGGAGAGGCCACGTGGCTGATGTCTGCT  
TGGACACTCCACTCTGTAATGGGCACACCACAGGGATGGATGTCTCTGGGACGGACCCCCATGGTGACTATGC  
CAGGAGAGACTCTTGCTTCTCGAGTTGCAGCATCCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAA  
ACAGACAAGAATATGAAGACATAGCTGTGAAGCTGGGAACGTAGTGAATAACCTGAAGAAAGTTCTGTGGCAAAG  
TCTGGAAGCAAAGAATATCTAGCCCTCTGTTCAACACCAAAACAATACACAATGGAACTAGAGCGGCTCTATCTAC  
AGATGTGGGAGCATTATGCAGCTGGCAACAAACCTGACCACATGATTAAAGCCTGTTGAAGTCACTGAGTCAGCAT  
AAATAAAGACTGCACAGGAGAATTACCCCTAAAAAAAAAAAAAAAAAAAAAAGGGCGGCCGAGGGAACTAGATAACATA  
CTTCTTACTTGCTGTACAGTACCTTGTTGCAGATGGGTGATATATAATGGTAATAGAAATAGCACAGCCAGACTT  
GCTTCCCTGCATGGTAGGGAGAGACACAAAAGATGGGAAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGGC  
GCGACCAGATGGTGATAGGCTGGAAGGCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAG  
ATATAGATTGTCCGGCCGCTTTGTGATTCCATGGATTGATTCACTCTCTGGATTTTTTTTCTTTATATTTTGG  
GTACTGGAGCTTTTAAAAATGTTTGGTTTCAGGTATTTTTATTTCATGTGAAGTGATATGATTCTCTTGAGATAA  
GGTTTTAAGCTAAAAATGTTACTCCCTGTTTGTGTTCTGAACCTGCACAGATTGACAGGGACTTTGCTGGTGATG  
TCTTTTATAGGTTTTATAAACCACCTTGAGCCATATCAGTCGTTTTAGTGCTGCACCTAATATTTGGAGCTATC  
AGTGCTTTGTGATTAGATGATGACTCAAGATTTTTTCTGGTCCATTTCCCATTTCTTTCTTCCCTGACCCC  
CATACCCCTACCCCTAAAAATCTCCTGTAACTCACTAACAAAATCAAGCCTGATTCAAAACATCCTAGGGTGTT  
TTAAACACACCATCTGGTGCCAAATGAAGATTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACT  
GTCATTGATAATAATATAGTTTTTTTTTTTTTCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAATAAAAAAAAAAAAAAAAAAAAAAAAAAAC

**FIGURE 802**

MLQGHFWLVREGIMISPSSPPPPNLFFFPLQIFPPFFTSFSSHLLSLTPPKACYLKAJETQPNFAVAWSNLGCVF  
NAQGEIWLAIHHFEKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLID  
LAIDTYRRAIELQPHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIIEAVRLYR  
KALEVFFPEFAAAHSNLASVLQQQKGLQEALMHYKEAIRISPTFADAYSNMGNLTKEMQDVQGALQCYTRAIQINP  
AFADAHSNLASIHKDSGNIPEAIASYRTALKLKPDFDAYCNLAHCLQIVCDWTDYDERMKKLVSIIVADQLEKNR  
LPSVHPHHSMLYPLSHGFRKAIAERHGNLCLDKINVLHKPPYEHKDLKLSDGRLRVGYVSSDFGNHPTSHLMQS  
IPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEАНFIDLSQLPCNGKAADRIHQDGIHILVNMNGYTKGARNELF  
ALRPAPIQAMWLGYPGTSGALFMDYIITDQETSPAEEAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSN  
GHIYDNRIVLNGIDLKAFLDLSPDVKIVKMKCPDGGDNADSSNTALNMPVIMPNTIAEAVIEMINRGQIQITING  
FSISNGLATTQINNKAATGEEVPRTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPNVSVLWLL  
RFPVAVGEPNIQQYAQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNGHTTGMVDVLWAGTPMVTMPGETL  
ASRVAASQLTCLGCLLEIAKNRQEYEDIAVKLGTDLLEYLKKVRGKVKWQRISSPLFNTKQYTMELERLYLQMWEH  
YAAGNKPDHMIKPEVETESA

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**FIGURE 803**

GGAGGAGGAAGCAAGCGAGGGGGCTGGTTCCTGAGCTTCGCAATTCCTGTGTGCGCTTCTGGGCTCCCAGCCTGC  
CGGGTCGCATGATCCCTCCGGCCGGAGCTGGTTTTTTTGCCAGCCACCGCAGGCGGGCTGAGTTACCGGCATCC  
CCGCAGGCACCTCCTCTCCCGACCTGTGATACAAAAGATCTTCGGGGGCTGCACCTGCCTGCCTTTGCTTAAGG  
CGGATTGAATCTCTTCTCCTCCCTCAGAATCTTATCTTGGCTTTGGATCTTAAAGAGAATCACTAACCCAGAG  
ACGAGACTCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAAATGCTCAG  
AGCAACCGGGAGCTGGTGGTTGACTTCTCTCCTACAAGCTTTCCAGAAAAGGATACAGCTGGAGTCAGTTTAGT  
GATGTGGAAGAGAAGGACTGAGGGCCAGAAAGGACTGAATCGGAGATGGAGACCCCGAGTGCATCAATGGC  
AACCCATCTGGCACCTGGCAGACAGCCCCGGGTGAATGGAGCCACTGGCCACAGCAGCAGTTTGGATGCCCGG  
GAGGTGATCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGCGCAGAGTTTGAAGTGGGTACCGGGG  
GCATTGAGTGACCTGACATCCAGCTCCACATCACCCAGGACAGCATATCAGAGCTTTGAACAGGTAGTGAAT  
GAATCTTCCGGGATGGGGTAACTGGGGTCGCATTGTGGCCTTTTCTCCTTCGGCGGGGCACTGTGCGTGGAA  
AGCGTAGACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTA  
GAGCCTTGGATCCAGGAGAAGCGCGGCTGGGATACTTTTGGGAACCTATATGGGAACAATGCAGCAGCCGAGAGC  
CGAAAGGGCCAGGAACGCTTCAACCGCTGGTTCTTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCA  
CTCTTCAGTCGGAATGACACGACACTGACCATCCACTCTACCCCTCCACCCCTTCTCTGCTCCACCATCCT  
CCGTCCAGCGCCATTGCCACAGGAGAACCCTACATGCAGCCCATGCCACCTGCCCATACAGGGGTGGGCC  
CAGATCTGGTCCCTTGACAGTAGTTTTCTAGAATTTATCACACTTCTGTGAGACCCACACCTCAGTTCCCTTG  
GCCTCAGAATCACAAAATTTCCACAAAATCTGTCCAAAGGAGGCTGGCAGGTATGGAAGGGTTTGTGGCTGGG  
GCAGGAGGGCCCTACCTGATTGGTGCAACCCTTACCCCTTAGCCTCCCTGAAAATGTTTTTCTGCCAGGGAGCTT  
GAAAGTTTTCAGAACCTCTTCCCGAGAAAAGGAGACTAGATTGCCCTTTGTTTTGATGTTTTTGGCCTCAGAATTGA  
TCATTTTCCCCCTCCTCCTCCACATAACCTGGGTTCCTTTCCCTTCATGCCATCCCTACCCCTAAGAGCCATTAG  
GGGCCACTTTTGACTAGGGATTACGGCTGCTTGGGATAAAGATGCAAGGACCAGGACTCCCTCCTCACCTCTGGA  
CTGGCTAGAGTCTCACTCCAGTCCAAATGTCTCCAGAAAGCCTTGCTAGAGGCCAGCCCCACCCAGGAGG  
AGGGGGCTATAGCTACAGGAAGCACCCCATGCCAAAGCTAGGGTGGCCCTTGCACTTACGACACCCTAGTCCC  
TTCCCTCCTTGCTCCCATGACCATACTGAGGACCAACTGGGCCCAAGACAGATGCCCCAGAGCTGTTTATGG  
CCTCAGCTGCCTCACTTCTACAAGAGCAGCCTGTGGCATCTTTGCCTTGGGCTGCTCCTCATGGTGGGTTCAGG  
GGACTCAGCCCTGAGGTGAAAGGGAGCTATCAGGAACAGCTATGGGAGCCCCAGGGTCTTCCCTACCTCAGGCAG  
GAAGGGCAGGAAGGAGAGCCTGTGTCATGGGGTGGGGTAGGGCTGACTAGAAGGGCCAGTCTTGCCTGGCCAGGC  
AGATCTGTGCCCCATGCCTGTCCAGCCTGGGCAGCCAGGCTGCCAAGGCCAGAGTGGCCTGGCCAGGAGCTCTT  
AGGCCCTCCCTCTCTCTTGTGCTCCACCTTGGCCTGTCTCATCCCGAGGGTCCCAGCCACCCCGGGCTCTCTGC  
TGTACATATTTGAGACTAGTTTTTATTCCTTTGTGAAGATGATATACTATTTTTTGAAGCGTGTCTGTATTTATG  
TGTGAGAGCTGCTGGCTTGTCAGTGGCGCTGCACGTGGAGAGCTGGTGGCCGAGATTTGACGGCCTGATGCTCC  
CTCCCCTGCCCTGGTCCAGGGAAGCTGGCCGAGGGTCTGGCTCCTGAGGGGCATCTGCCCTCCCCCAACCCCC  
ACCCACACTTGTTCAGCTCTTTGAAATAGTCTGTGTGAAGGTGAAAGTGCAGTTAGTAATAAATCTGTTTAA  
CTAGTGAAAAAAAAAAAAAAAAA

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**FIGURE 804**

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATGHSSSL  
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL  
CVESVDKEMQVLVSRIAAMMATYLNHLEPWIQENGGWDTFVELYGNNAAESRKGQERFNRWFLTGMTVAGVVL  
LGSLSRK

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**FIGURE 805**

GGCACGAGGCGTCCCGGCGCCACTCGGCCAGGGCAGGGACCCGCCACGGCCGGGACCGCCCGGCCCGCCCCA  
GCCCGCGCCTCTCCGCGCCGCCCGCGCTCCGCACGCGCCCTCTCCGCGTCCCGCCCGCGCGGGACCGGG  
CAGCCAGAAAAATCATTTCCTCTCTGGGAAGGTGAACATTGTAGCATTGATTTCCCGGATCTGGTAACATGG  
CAAAAGATGCCGCTTAATTGAAGCCAACGGAGAACTCAAGGTCTTCATAGACCAGAACCTTAGTCCCGGAAAG  
GCGTGGTGTCCCTCGTGGCCGTTACCCCTCCACCGTCAACCCGCTCGGGAAGCAGCTCTTGCCAAAAACCTTTG  
GACAGTCCAATGTCAACATTGCCCAGCAAGTGGTAATTGGTAGCCTCAGAGACCGGCAGCGTCAAAACACCTGG  
TGGTAGGAAGCCACACACCCCCAGCACTCACTTTGCTCTCAGAACCAGCGCTCCGACTCCTCACCTTGGTCTG  
CCGGGAAGCGCAACAGGAAGGAGAGAAGAAATGGCAAGGGCCTACGGCATTTCTCCATGAAGGTCTGCGAGAAGG  
TGCAGAGGAAGGGACCACTTCCTACAACGAAGTGGCAGACGAGCTGGTTGCGGAGTTTCAGTGCTGCCGACAAC  
ACATCTTACCAAACGAGTCAGCTTATGACCAGAAAAACATAAGACGGCGCGCTACGATGCCTTAAACGTGTAA  
TGGCCATGAACATCATCTCCAAGGAGAAGAGAGATCAAGTGGATTGGTCTGCCCAACCACTCGGCTCAGGAAT  
GTCAGAACTTAGAGGTGGAAGACAGAGGAGACTTGAAAGAATAAAACAGAAACAGTCTCAACTCAAGAACCTTA  
TTCTACAGCAAATTGCCTTCAAGAACCTGGTGCAGAGAAACCGGCATGCGGAGCAGCAGGCCAGCCGCCACCGC  
CACCCAACTCAGTCATCCACCTGCCCTTCATCATCGTCAACACCAGCAAGAAGACGGTCATCGACTGCAGCATCT  
CCAATGACAAATTTAGTATCTGTTTAAATTTTGACAACACATTTGAAATCCACGATGACATAGAAGTCTGAAGC  
GGATGGGCATGGCTTGGCGGCTGGAGTCGGGGAGCTGCTCTGCCGAAGACCTTAAATGGCCAGAAGTCTGGTCC  
CCAAGGCTCTGGAGGCATACGTGACAGAAATGGCTCAGGGAACATGTTGGAGGCGTGTTCATCAGCAGCGCAGGTT  
CCACGTCTAACGGCACAAGGTTCTCTGCCAGTGACCTGACCAACGGTGACAGATGGGATGCTGGCCACAAGCTCCA  
ATGGGTCTCAGTACAGCGGCTCCAGGGTGGAGACTCCGGTGTCTACGTCTGGGAGGACGACGAGGAGGACGATG  
ACTTCAACGAGAATGACGAGGACGACTGACGCTCCTCCCACTTCAGATTCGGCTTCAGGAAACGTTTAGCGAAA  
AGAAACTTTTTTTTTAATGTGGTTTTCTGTTTCCTTTTGGCCTACTCCCAAGAAGATATTGTAAGCTATTGAA  
TTTAGATATGCACCTCTGATAAGCAAGGATTGTTCCCGTAGGATTAGGACGTGCTGTGGATGTGTGTTTGATA  
CCAGTGTGCTGATGACAGCGCTTTATTTAGTGTGTAGGATTTGTGTTTTTCATTGTGCTATTTTCTTTAAGTGCA  
GAGTTACTTTTTTGGCCCTGAAAAGTTTTTGCTGAGTTTGTGAAGAAATTGATTCAACCACATCCATGAAAAT  
AAAACACCTCCTGTTGTGGATGTGAGCCCTGATGCCGCTTATTGCGGTGAGTTTGGACGGCACCCCTGCTGG  
CGGATAGCAAGACTCTGTGGAGTTTGTTCAGTGGTACGGTGTCCAAGCAACAGCAGAATGCAACTTTCTAAACA  
GCCCCAAAGCAACAGCAGAATTCAACTTTTTAAACAATAAACACCATCAACCTTATTGACTTTATTGTCCCTTAA  
ATTATATTGACTGTTGTGATTCATCAAGTTTGACACTCTTTTCTCTCCCTGTTTTGACGACAACAATTGCGAA  
GTGCTTTTGTGTTTGTGTTTCGTTTGGTTAAAGCTTATTGCCATGCTGGTGCAGCTATGGAGACTGTCTGGAAG  
GCTTGGAAATGGTTTATTGCTTATGGTAAATTTGCTGATTTCTTACAGGCAGCGTTTGGAAACCTTTTATTATA  
TAGTTGTTTACATACTTATAAGTCTATCATTTAAAGACATGTACTGAAACAAATGTATTTGTTTCTATAAGCATCT  
TCCTGTAATCTATTATAAAATGAAATTAATATAGAGAATGTTTAAACAAAAAAAAAAAAAAAAAAAAA

**FIGURE 806**

MAKDAGLIEANGELKVFIDQNLSPGKGVVSLVAVHPSTVNPLGKQLLPKTFGQSNVNIQQVVIGTPQRPAAST  
LVVGSPTPTSTHFASQNPSSDSSPWSAGKRNKGEKNGKGLRHFSMKVCEKVQRKGTTSYNEVADELVAEESAAD  
NHILPNESAYDQKNIRRRVYDALNVLAMNIIISKEKKEIKWIGLPTNSAQECQNLVERQRRLERIKOKQSQLQE  
LILQQIAFKNLVQRNRHAEQQASRPPPPNSVIHLFFIIVNTSKKTVIDCSISNDKFEYLFNFDTNFEIHDDIEVL  
KRMGMACGLESGSCSAEDLKMARSLVPKALEPYVTEMAQGTVGGVFITTAGSTSNGTFRFSASDLTNGADGMLATS  
SNGSQYSGSRVETPVS YVGEDDEEDDDFNENEDDD

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**FIGURE 807**

ACTTATACATCTGTAAGGTGGTTTCAGGGACCTTTCTGAACTTAGCCCGTATCTCACTGGTGATCCCACTTCTG  
GGTATTTGCAAATCACTTTATTAGGTTTTTAAAAAGTATTGTTGCAGGCATGCGAAGGGCCGATATACTTTTGCC  
ATGTCCAGAGTGTATTCAGGCTTGTAATGATCATATGGGTGTAATATTGAGTAACAGGCCAAATGTGGGCAGAAA  
ATATCAAATGTGGTTTTTCAGCTAAGAAGTCTGGTTGCTCTTAATTTTCAGTTACTCTCCATTGCATAGAATAAAG  
CCCCGAAGAAACGAAGAATAAGATCATGGGGAACTTGGCTTCCATGTTAAACCGTGTAAATACCAGGTGTTAGAA  
TAGTAGTAAAGGACTTGTTTCTTTCACATCTATATACACTCAAAAGACCTCATCGATCTTGGAAAAACATTGTTT  
CGAAGACAATGTGTATGACTGATTGGTTATATGAAGAAATTATTTCTAGGATTTCTGGTAATTTCTGTGATAAA  
CAGTAATACAAACTGGAATTTTTACAGGTCACTATAGTAGAGGTTTTAGTTTGATTTTTGCTTTGCCTGTCATGC  
TCTCTCTGCCCTTATAATTCTTTGTTGTTAATTAACGAACACTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NNNNNNNNNTGCAACACATTTTAATTGACAACACTAGGGCTGTTGTACAAAATAGTAATGATAGCCATGGAAG  
TTTTACCTTATTCTGTGAGAAGTGTCTTAAACTATTAAAGTGCTAAACTAAGGTTTAGTGCTTTTTTAAAGGA  
AAGTTGCCCAGGATTCTATCTAAAGAAAGCAAAAGTTAATTCAACTGATCCACCAATGGAATTAGATGGGTAGA  
GTTGGGTTCTTGAGTTTTACCACCACCTTAGTTCCCACTGAATTTTGTAACCTCCTGTGTTTGCATCCTCTGTTC  
TATTCTGCCCTTGCTCTGTGTCATCTCAGTCATTTGACTTAGAAAAGTGCCCTTCAAAGGACCCTGTTCACTGCT  
GCACCTTTTCAATGAATAAAAATTTATTCTGTTCTAGTGGGAATGTGTCCTTTGTTTTAGTTGCACAAAGTAGTAAT  
TTTGACAAGATGCTTTCTTCTGATGCAGTTTGTATACTACTCACCTAGTACTAGAAATGGCTTCTAGTCAGA  
TCTATAGTCTCTACCTGTATAGCTCTTACATACA



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**FIGURE 808**

MLSSDAVCFNHSPSTRNGFLVRSYSLYLYSSY

## FIGURE 809A

CCGTCGCCGGGGCGGACGGGCGCGGGCGGGAGGATGAGAGCTGAAGTCCCTGCTGATCTGCTGGAGGCGGCCGAGT  
ACCTGGAGCGCAGGGATCAGAGAGGCCGAGCAGCGCTACGCCCTCGGTGCTGCCCTTCGACGGCGGACTTCGCCAGGG  
AGAAAAACAAGCGCGCGCGCTGGTGCAGAGGCCGCCGAACAACAGGCTTCACACACAGCAGCTAGAAAAAGCACA  
GACGAGCCAAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCGCCGACAGCACCAGCCGACACA  
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA  
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTCTCTGAAGCGCGCCTGGAGCAGCTGTGGGTGCAGAGCGTGGAGC  
GCGTGCACAGCAGTAGCACGGGCTCTGCTGTCTCACGGACAGCTCAGAGCAAGAAGTGGACATAGAGGGGATGG  
AGTTTGGCCCTGGTGAAGTGGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA  
CCGGCGCGCAGAGTGGCTTCGGGCGCCCACTGCGCGCGGCTGGGCGCCGCCCGCCCTCTCGTAGGCCCGTGCCTCT  
GCTCCTTGGCCTGCGCTGCCGCCAGCCAGCGGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA  
CAGGCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGGCTGGCAGTGCCTGCTTGGCGGTGAGG  
GCCTGCCGAGCTGCCTGCCCTTCCAGCTGGGCGAGAGTCCCTGCAAGGAGGCGAGGCGCCAGCTTCCACATCCGG  
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTTCTCAGATTCTTAATCATTCCAGAAGTATTAACGCTCATTGCT  
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCAGCGGAGGCTCAGACGCCCAACCTGGATCCGAG  
GAGAAAGGAGTGGACCGGAGGAAGGAAGGAAGGCAAGGCTGTCTGCCATCGCTGCTTCCACTGCTACCTGCTGTA  
GTCACATAGGCTCCTGGCGTGGACAGGGGCTGTGAAGGCGGGAACTGGGTGAGCAGCTGGGCGAGGTGGGT  
GGTTAAGGTCCTTCCCACTTCGACAGGTGTGAGAACCTAGGGCTGGGCTCTCGGGCGCAGCAGGCCAGCCAGCC  
CAGCGCGAGCTGGGCGAGCTGCTCTTGGTAGGACTGTACAGCGCACACGGCGCAGCAGCTAGACACACCCACTC  
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCGAGGTACATGTTCTGGGATGATGGCCTTCAGGGG  
TCATCTGGCAACAGCCCTGGGCTGTGCTGGATCCCCCTTAGCTCTGCTACCCAGCCGCCACCCAGTAGTCT  
CTGCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGG  
CCGCTGGGCTCTCGGGGCTTACTCATCTCCCTTTTTTAAACAAAAGCAAAAAGTAAATGCTGCACCTGCCCA  
CAGCCCGGTTAGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGGCGCAGCTTCAGCTGG  
GCAGAGGCTTTCACAGAAAAAAGAAACCAATTTTAAAGAGAAAGGCTCAGAACTCAAGACTCTGGCCTAGGGA  
CGTCCGTGTGTGCCCTCTGTTTCTGTACAGATTTTGTATTTCTATTTCTAGCTGTGTGTGGCTCTGT  
TTGCTGAGGGGTGGGAGCCACCGAGCTCTCAGGAGCTGTCCCTCGCTACGCTGTCAAAGTGTGCTTGTGCT  
TTGTGTCAGGCTTGCCTTCCACACAGCATGTCCCTGTGGCTCAGGCTGCCAGGCTGCCAGCTAGTGCT  
GTCTTCCATCTCCTGTGGGCGAGCCTCCCGGCGAGGCTTCTGGAGGCGATGCAGCCAGGCGCTGTGG  
GTGGCAGGAGGGGCTGTGACCTGGTCCCAAGTGTGCCCTCCCAAGTGGCTGGGCGAGGCTGTGCTACTGA  
GAGAGATGGAATCTACCTGTACCTGACTCAGAGCCCTGCTTCTTGGCTAGGCGAGGGTTCAGGTTTCAGA  
CACTGGCAGCCAAATGAAGACTGTGCTGCTGGTGGTGCAGGCTGGCAGCAGGAGCTTGCACCCGCTTCTCT  
TCTGAGCTCCTCTGCTCTTGGGCTGGGCCATAGCAGTGCCTGGCGTGCCTCTGGTACATCTGTAGCAATTC  
CATATCATGGGAAAAATTCGTGCTATTTTCACTGTACGCATAGACGCCCAAGGATGGGGGGCCACTGTGGGG  
GAAGGGGGCTCCGGAACAACCTTCGGACAGAACTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA  
GGGCGATCCGAACCGGTTGCGGGTGGTTGTAGGAGGCTGTGTGCATCTCTCTCGGCGCCACTGGGCGTAGG  
GGTGGCCAGAAAGGAGCTTCCCTGCCCTGCCTGAGTGTGTCCCCCAGGCTTCAATTCACACACCGTGGCAGCT  
CGAGCAAGGCGGGCGGTGTGTAAGCTTGCTTCCCCAGCCAGCACTGCAGGCGCCCTGAGGTTGGTGTGCTCTCTG  
CCCTCAATTTGAAGCAGCAGCTTCCCTGCCCAACCTCCAGTGCAGCAGCTAGGGGCTTCTGCTCTATCT  
TCTGACAGCAGAAATCCACCGGTGACCAAGTGGTGGGCTTCCAGCCCACTTCCGGGCACTCAGGCTGTGGCT  
TTGAGGCGGTGTTCCACGTGGACTGGGAGGAGCTCAGCCACCGGGGTGCTGTGCTAGCTGCCCTTCCCTGC  
CTACAGAGCTGGGTGAGGGGTGCCCCACTGGGTGGGGGCGGCTGTAGGAGTACCACATGCTCCAACTCCCA  
CTGCTCCTGTGAGGGGCGGAGGCTGCCATCACTGGAGGCTGCAGGAGCAAGAGGCTTACCGGTGTCTATAGA  
GAGCAGACAGAAGCAGAACAGCCCGGGCTCTGAGCCTCTGCGTGTGCCCTCCAGCCACACAGTGCCT  
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCACAGCCTTATTGGAAGGAGCTTCCGCATACAGGATAAC  
CCCGCAAAACCATAGCAGACCCCGGCATCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTGGCTTGCAG  
ACCCATCTTAGTGGCAGGGTGTGGGCTGTGTCCCGGGTGGTGGAAACCTGTGACGGCTGTGGGCTCAGG  
GTCCTGCTGTGTGCCCCGGGCGTGTGTCCGCTGGGTGAGGAGGCTCCCCGTGCCCTGCCCTCCTGT  
CAGGGAAGCTGGGACCCCTCCCACTGCTGTGCAGAGGACCTGACCTCGGCCAGCAGGGTGGCCCCAGGTC

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**FIGURE 809B**

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT  
GCGCTAGAGGGGGAAGGGGCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT  
ATAAATACAGATTTTATATCTC

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**FIGURE 810**

MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTLLSLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV  
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLQSGTGGDSGFGPHCRRLGRPALS

**FIGURE 811**

CGCGGGCGGGAGG**ATG**GAGCTGAAC TCCCTGCTGATCCTGCTGGAGGCGGCCGAGTACCTGGAGCGCAGGGATCG  
AGAGGCCGAGCACGGCTACGCC TCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGGAGAAAACAAAGCGGCCGG  
CCTGGTGCGCAAGGCCCGGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACAGACGAGCCAAACTCAGGGCT  
GTACCTTGAGCAGCTCAAGCAACTGGTGCCCTTGGGCCCCGACAGCACCCGCCACACCAGCTGAGCCTCCTGAA  
GCGGGCCAAGGTGCACATCAAGAAACTGGAGGAGCAGGACCGCCGGGCACTGAGCATCAAGGAGCAGCTGCAGCA  
GGAGCATCGTTTCTTGAAGCGGCGCCTGGAGCAGCTGTTCGGTGACAGCGTGGAGCGCGTGCACACAGATAGCAC  
GGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAAGTGGACATAGAGGGCATGGAGTTTGGCCCTGGTGAGCT  
GGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCACC GGCGGCGACAGTGGCTT  
CGGGCCCCACTGCCGCGGCTGGGCCGCCCCGCCCTCTCG**TAG**SCCGTGCCCTCTGCTCCTTGGCCTGCCTGCC  
CGCCAGCCACGCGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCACAGGCCCACTGCTGTGCCA  
TTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTCCGGTCAGGGCCTGCCAGCTGCCTGCC  
CCTTCCAGCTGGGCGAGTCCCCTGCAAGGAGGCAGGGCCGAGCTTCCACATCC

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**FIGURE 812**

MELNSLLILLEAAEYLERRDREAEHGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTSLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVVERVRTDSTGSAV  
STDDSEQEVNDIEGMEFGGELDSVGSSDADHDYSLQSGTGGDSGFGPHCRRLGRPALS

GTGAGCGCGCTGCTCGGCCGCGGACACACGAGGAGCGCGCCGAGGAGCTGCAGGTGGCAGCCAGGCGGTG  
CGAACCCGTCGCGCGGCCGAGCCCTGGAGTATTGCCCTAAGTGTAATCTTGAACATGCGCGGTGCTGTGAGTGCTGG  
TGAAGACAATGAAGAGCTGTAGATATATTTGAAAGAACGACAGTATATCCGAGCTGAGCTGGTAGAGCAGCGTTT  
CAGAGCTATCGATCTGTCAGACTATTACTTGAAGAAATTTAAAGAAATGCTTATAAGAGCTTGGCATGGGAAC  
TGGAAACATTACCTCTCAGCCCGGTGCATCTACTCGGAGGTGATGGAAGCCCTAGATCTGCAGCCTGGACTCTC  
GTTTCTGAACCTGGGCACTGGCAGCTGGGTATCTCAGCTCCATGGTGGGCTCATCTTAGGTCCCTTTTGGTGTA  
CCATGGGCTGGAATCTCAGTCTCAGATGTGATAGAGTATGCAAGCGAAGAACTGACTTCTTCATCAGAAACAGTGA  
TAGTTTTGACAAGTTTGACTTCTGTGAACCTTCCCTTTGTTACTGGGAATTGCCTGGAGATTTCTCGGATTGTTC  
TCAGTATGATCTGTGATACCTGTGGGCTGGCGTGCAGAAAGACATGAAGAGTACATGAAGAATCTTCTCAAAGT  
GGGAGGATCCCTGTGCTAGCCACTGGAAGAGAAGTTGACTAAGATAACACGACAGGTCTTCAGCTTGGGAAC  
CAAAAGATCTTGTGCTTTCTTGTCTCTGATCCAGCCCTGCCATTTCAGAGTCAGGAAAAATCAAGACTTGT  
CCAGTTACCAACAGTGGCAGTTCGAGCCTCCAGGACTTGGCTCGCATCGCCATCCGGGGCACCATTAAAAAGAT  
TATTCATCAGGAACTGTGAGCAAAAACGGAACGGACTAAAGAACACCCCGAGTTTAAACGAAGGAGAGTTCCG  
CCGCCGTGCAATGGAACGATTGTCTTTTGACAAAAGAGTCTTTGCCAGTCGGATTTCACCCCTCAGATGA  
CAACAGCTGTGAAGACTTGGAAAGGAACGAGGAGGAAGAAGAAGACCCCGCGGAACAAAGCCAGACCC  
CCAGTGAACCTCTACGCCAGAGGCTCTGAGCCTCCCTTCCAGATCCCTTGAATACTACTTTGCTTTATTA  
CAGAGAAAAATAAGTCTCCTGTTTGAAGGGGGAATAAGGAAGCAGAGTGTCTGAGTGTGAAGTCTGCTGGC  
TGTGTGCTGTGAAGGTCAGCTGGAGGCAGACGTTGTGGGAAGGGAACCTGCTGGCTCATCCACCACTGGT  
TCTTCTTAGTCTCTGAGGCTTCAAAATTTCTATCTAGTTGTATGATTTGTTTACATAGTTCACAAAGACCTTC  
ATTGCATAGAAGATGTTTCCCAAAGTGGAGAGATCTTCATAGAGAAAAGAGAGGCTGTTCTTTTTCGCG  
TCTGACGAACACTGAAGTCTCGGTAAGAGAGACTGTTTATGACCCCTCATGCAACATGCACGGTACTCAC  
TAAAAATGAAACTGAAGTGGAACTAACCTGTGTGCTTATAAGTGTGAAGCACAAGCTTATAAATGTATAA  
AATCTTCTTGGGTGAGCGACCTCGCTCCAAGTTTGAATTTTATGATATGACCACTTAATTACTGGCACTG  
AGTACTCAATTTCTAGTTTCTAGTTTCTAGTGGGAACCATTTAGAGAAGCCCTCCTTATTTAAAGTAAGTTGAT  
TAAATCTTATGTGAGTGTCCAGTGTGAATTTTCAAAGGAAAAATTTGATGGGTGGAGGAATGAATGGCCAGA  
TAATCTTTCTGGAATTCGAGAGAAATCCAAAGAGGGTTTTTTTTTTTTTTTTTAGGACATCTTTTGATACCT  
TTAAAGAACCAGCTGCAAGTAACTCTTAAAAAATATCTTGGAAAGGAACAGATTTTTCTGTGTGTGAAGC  
ATAAGTGAAGTTACATTTGCCCTAACCCTAGGGATGATCTTACCAGTTTAAAGCCCATCATGGTATTCTA  
AGGTGTTGACACCCCTCATCTCAGAGCAGGTGCAAAATATTAATAGACTGGGACTCTATGATGGGCAGCCG  
TGCTTTTTGACTTCAGTTTGCTATTTTTCTGTGATCACATTAGTACTGATTCATAGATTACTCTTTTATAATTC  
TGGAGAAAAAGATTGTGTAGTTTTGTAAATTTTTTGTGAAGACCAATGATGATTTTATGAGTCCATTGCTGAT  
AGAAGAGTGTAACCTCACACTGACTTGTGATATCAGCCTTCTCGGCCCTTGTGTGGAGAGCTTCTCATCTTAC  
CAAGTGGTAGGGCTAAAGAGAACACAGCCTTTTTGGTAGTCACATAGCAGAATGATCAGAGTTACATTGCTTATT  
CCAAAACTAGTTGTTCTTTTAAACATTTTTTTTACCAGAAAGAAAGATATAGAATTACTAACAATAAATA  
TAAATCAGAGTGTGATATAGGATTCAGTATCCAGAGTTTATTTAATCTTAATCTCAGCTTCTTGGGAGT  
GCTGGGCTTCAGTGCTCTGTGGTTTACCAGCTTAGCTTGAGCTCTGGTTATTTGGATCTTTTCTGCTTTTT  
TGAGTAACTGAGTCATTTTTACCACAGCTCCAGTTTGATGATATAGCTAGGAAACATGTATTGCTCTAGATTGG  
CAGGTTAAGTCATTTTTAAAGAAAGTTAGTTTCAATAGTTGTGCTTTTAACTCATGCAAGCTCAGCTTTCA  
AAGAGAAATGTGTATTTTCACTTGTGATATTTGTAGTTTGGAGATCCTTGTGGGCATTTCTTAACGT  
ATACGTAGACACTTACTTGGAAATTTTTGGACATTATATAAATGAGTGCTATCTGTGAAATGGTTATATAGG  
TGGCTTGACTAATGTTTTTCTATAATTTGATATGGACTGCATTTTTAAAAAACCAGATTGCTTTATGCTAG  
ATTGTAAAAAATATATATAGATGCATAAGACATGTTTTCCCTCATATGCTAGACTTTTCTAGCAATTCGTAT  
TCTGTGTTGTCAGTGTGTGATTTTTAAACCCGAATTTGGTTTAAAAAATCTGGTGGTAAATATGTGAGAA  
TACTTTGGTGTTTACCTATGAAATAAAGGATTGTAAGTAAAGTTTCTGCGCACTTATACCGAATTCAGTA  
TAATACACTACTTCTGTTTCAAACAGATAAATCATAATAGATCTGTATTATCTGAAGATCTGTCTGTAA  
CCACATCTTGCACAACTATTGCTTTTGAGTAGTTTGTATTTTAAATGTGACTTTTGTCTTGAAGAGTAGTAA  
GCCATAGTTTGCAGAAACAGTTTCAAGTTTATAGATATTAAGTTTGTAAATGTGAGCATCAATGTGTATGTA  
AAAACTCTTTTTACCAGCTTGAAGCTTGGGAAAAATCCAGGGAATTTGAACACATAGATTTTAAATGAGCTGGTAAAC

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**FIGURE 813B**

ACAAATCATGTCAATAAAGGTAGTCAGGATATTTTATCCTTAGCATTGCTTCTGC



**FIGURE 814**

MGGAVSAGEDNEELIDNLKEAQYIRTELVEQAFRAIDRADYYLEEFKENAYKDLAWKHGNIHLSAPCIYSEVMEA  
LDLQPGLSFLNLGSGTGYLSSMVGLILGPPGVNHGVELHSDVIEYAKQKLDFFIRTSDSFDKFDFCEPSFVTGNC  
LEISPDCSQYDRVYCGAGVQKEHEEYMKNNLLKVGILVMPLEEKLTKITRTGPSAWETKKILAVSFAPLIQPCHS  
ESGKSRLVQLPPVAVRSLQDLARIAIRGTIKKIIHQETVSKNGNGLKNTPREKRRRVRRRRMETIVFLDKEVFAS  
RISNPSDDNSCEDLEEERREEEEKTPPETKPDPPVNFRLQKVLSLPLPDPLKYYLLYYREK

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**FIGURE 815**

CGAGGGCAGCGCCGGTGGGAGCGCAGCGCGGCGCAGCTCGGCGCGCACGGCGGGAGCGGCGCGAGTGGTCGG  
GCCTGGCGGGCTGGACGGGCGCCCTCGCTGCCCCGCGCGCTCCCCGCCGCCCCCATGAGCGCAGCCCCGCGCGG  
CCCGGGTCCGTAGGCGGGGGGCGCCCCCATGCTGCTGCAAGCCGCGCCGTGCGCCCCGAGCGCGGGCTTCCCG  
CGGCCCCGTGGCGGCCCGCGGCCATGCACGGCTCGCAGAAGGACACCACGTTACCAAGATCTTCGTGGGCGGC  
CTGCCGTACCACACTACCGAGCGCTCGCTCAGGAAGTACTTCGAGGGCTTCGGCGGACATCGAGGAGGCCGTGGT  
ATCACCGACCGCCAGACGGGCAAGTCCCGCGCTACGGCTTCGTGACCATGCGCGACCGGGCGGCAGCTGAGAGG  
GCTTGCAAGACCGGAACCCATCATCGAGCGGCCAAGGCCAACGTGAACCTGGCATATCTGGGCGCCAAGCCG  
CGGAGCCTCCAGACGGGCTTTGCCATTGGGGTGCAGCAGCTGCACCCACCTTGATCCAGCGGACTTACGGGGTG  
ACCCCGCATACATCTACCCACCGACCATCGTGACGCCAGCGTGGTGATCCAGCCGCCCCCTGTCCCGTCGCTG  
TCCTCGCCCTACATTGAGTACAGCGCGGCCAGCCCGGCTTACGCCAGTACCCACCGGCCACCTATGACCAGTAC  
CCATACGCCGCTCGCCTGCCACGGCTGCCAGCTTCGTGGGTACAGCTACCTGCCCGCTGCCCAAGGCCCTC  
TCAGCCGACGACCCGCGGGACCACTTTCTGTCAGTACCAGGCGCCGAGCTGCAGCCTGACAGGATGCAGTGA

GGGGCGTTCTGCCCGGAGGACTGTGGCATTGTCACCTTCACAGCAGACAGAGCTGCCAGGCCATGATGGGCTGG  
CGACAGCCCGGTGAGCTTTAGTGAGTGCCACCAGCACCCGTGCTCCGAAGACCGCTCGGGCATTCCGCCGTG  
GCCCTGGGACAGCGGAGAGATGGCTTCTCTTTAATCTAGGTCCCATTTGTGCTTGGAGGAGGACTTTAAGAATGA  
CTGAGAATATTAAAGACGCAATCCAGGTTCCCTGCACACCATGGCAGCCTCTTCTTGACCTTCTCCTGCCT  
CTCCACACTCCAGGTTCCCTCAGGCTTGTGTCCCACTGCTGCATCGTGCGGGGTGTCACAGACCTCTGCAGC  
CCCTGGCTGCCCTGGACTGTGCAGAGATGCCTGACTCCAGGGAACCTGAAAGCAAGAAGTTAATGGACTGTTTA  
TTGTAACCTGATCCTCCCGAGCTGTGAGCGCAGTCTGAGGTGTGAGGACACGGCCTCCTGTTGGAGTCCCATTTT  
CTCCATCAGGGCACGTGGGCGGCTTCTCAAGCCCGAGGAGCTCCAGGCGCACAGGGGCCCGCGGTAACAGGG  
GCCCGCGGCCAAAGGCCCTTTCCAGTCTATAGCACTGAAGTTGCAACTTTTTCTTGTAATGTTTTGCTACTAA  
GATAATTTCAAGATTACGTCTATTTTTTCAGCGGATACTGCCGCCACCAAGAATCCAAAACCTATTTTTGACTT  
GGAGAGACTTGCCTTTGTGTGTTCCGCCCGTGGAGACGACGACAGTGTTCGTGATAATAAGTGCTGCCGGCT  
CGCGGGCCAGGATCTCTCGTGGGATGGGCACACAGACAGGAGGCCCTCAGGCCCGTGGCGGCCACTGTCTG  
CTGCCCGCTGCCGGGTGGCAGAGTGAAGTGTCTCAGGACCCGCTCACTGCGAGCTTGACACTCTCTCCTTCCT  
CCTTCCCCAACTCCCCAAACACTGTGGAAGGAAGAAGGAAGTGATCCACAGCATTCAGGCCACTTGGGGTCTAG  
ACCATGGTGGTGCCAGCCTGGGGGGGCGAGTGCCCTCAGCTCTGCCCGCTGGAGCGGTTGAGTGAGAAGGGTG  
CGCCTCTTCCCTCTACCCCGCACCACTGCTGTGTGCCAGCCTGAGACGGTTCCTGCCTGTCTTGGGGGTTGGT  
GGAGGGTGGAGGAGTTCTGCCAGCCGTGGCAGGGCTGCTATGGGGATCCAGGGCTGTGGGGTCTGGAGGAGG  
GGACATGAGGTGAGAGGTATCTTGCCGAGGGCGGGGGGCGAGCGGGGGTCTCCCTCCGGACCTACCTCAGGGAG  
CTGAGCGTGCAGGCGCTCCAGGGCAGCCCTGGGACAGAGTCAAGGCTCAGAGAATAAAGGTAGCTAATCTCATCA  
TAATATTTTTATTAGAATGTTCTGATGATAAAAATAAACTTGTTTTCTTT

**FIGURE 816**

MHGSQKDTTFTKIFVGGLPYHTTDASLRKYFEGFGDIEEAVVITDRQTGKSRGYGFVIMADRAAAERACKDPNPI  
IDGRKANVNLAYLGAKPRSLQTGFAIGVQQLHPTLIQRTYGLTPHYIYPPAIVQPSVVIPAAPVPSLSSPYIEYT  
PASPAYAQYPPATYDQYPYAASPATAASFVGYSYPAAVPQALSAAAPAGTTFVQYQAPQLQPDQM

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**FIGURE 817**

GAGCCAGCCGAGGCTCCGCCGTGCCCGTGC GCCTCTGCGCTCCGCGCCATGGCGCGCCTCAACTCCCTGGAGG  
CGGTGAACGCAAGATCCAGGCCCTGCAGCAGCAGCGGACGAGGCGGAAGACCGCGCGAGGGCCTGCAGCGGG  
AGCTGGACGGCGAGCGCGAGCGCGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG  
TTGAGGAGGAGTTGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG  
CAGATGAGAGTGAGAGAGGAATGAAGTGATAGAAAACCGGCCATGAAGGATGAGGAGAAGATGGAGATTACAG  
AGATGCAGCTCAAAGAGGCCAAGCACATTCCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG  
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCAGGAGTGCTGAACTAAAATGTGGTGACCTGGAAG  
AAGAACTCAAGAAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAAGTATCTGAAAAGGAGGACA  
AATATGAAGAAGAAATTAACCTCTGTCTGACAAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA  
CGGTTGCAAAACTTGAAAAGACAATTGATGACCTGGAAGAGAAACTTGCCACGGCCAAAGAAGAGAACGTGGGCT  
TACATCAGACACTGGATCAGACACTAAACGAACCTTAACCTGTATATTAAGCAAAAACAGAAGAGTCTTGTTCCAACAG  
AAACTCTGGAGCTCCGTGGGTCTTTCTCTCTCTTGTGAAGAAGTCCCTTTTGTTATTGGCATCTTCGCTTTGGCTG  
GAAATGTCAAGCAAATTTATGAATACATGACCAAATATTTTGATCGGAGAAGCTTTGAGCACCAAGTAAATCTCA  
TTCCTTCCCCTTTTTTTTCAAATGGCACCAAGCTTTTTCAGCTCTCTTATTTTTTCCCTTAAGTAGCATTTATTCCT  
AAGGTAGGCAGGGTATTTCCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTGGTCTCTGGGAGAAATAGGCAG  
CCCCACACTTTGAAGAATACAGACCCCAAGTATCTAGTCGTGGATATAAATAAAACGCTGAAGACCATAACCTTTT  
GGGTCAACTGTTGGTCAACTATAGGAGAGACCAGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT  
AAAAGGACTGTGGGGGCGGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG  
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA  
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATGATCCTTGATGTGATGTTCTTTTGCAATATTCCTT  
CATTTCAAAGTTGTCTCCCTGGCCGGGAGCGTTTGCTTTTCGCTGTAAATCCCAACACTTTGGGAGGCCAGGACAGA  
TCACTTGAGGTGAGGAGTTGAGACCAGCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAAT  
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG  
ACTGCAGTGAGCCGATATCGCACCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAATA  
AAAAATAAGTTGTCTCTGAAGAGCAAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC  
AGTCCAATTGAGGTGAGGCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTATCTATTA  
GCAGAAAGGGCCCTCTCGGCAGCAGAGATTA AAAACTGGCCCAACTTCATTCTCAGGGAACAGCAAAAT  
TGAGGATTTACTTATCTAGGACTT